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Bureau of Agricultural Economics



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Agricultural Economics Bibliography No. 29

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VALUATION OF REAL ESTATE
With Special Reference to Farm Real Estate

Compiled by Emily L. Day
Under the Direction of Mary G. Lacy, Librarian
Bureau of Agricultural Economics

Washington, D. C.
November, 1929

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PREFACE

This bibliography is the result of an attempt to gather together what has been published on the valuation of real estate, particularly farm real estate in the United States. Since principles and methods of valuation have received more attention for urban than for rural property, at least in this country, references to city studies have been included also.

The list of Sources Consulted shows what has been examined in preparing the bibliography but it is realized that many references may have been omitted either because they were not available in Washington or because their titles did not suggest that they contained matter on the subject. It will be appreciated if users of the bibliography will send to the library any omitted references which they think should have been included. As a rule only the latest editions of books were examined. Unpublished manuscripts have been omitted except for the theses mentioned below.

Very few references to methods used by mortgage and insurance companies in making appraisals for farm loan purposes have been found. The publications of the U. S. Federal Farm Loan Board on the subject have been included.

Many studies in farm management, land utilization, etc., have a bearing on valuation but these have been omitted. References relating to valuation for tax purposes have been included only when principles and methods are discussed. The bibliography on Taxation and the Farmer compiled by Margaret T. Olcott (Agricultural Economics Bibliography No. 25) and the Brief Bibliography on Public Finance and Taxation with Special Reference to Forestry and Other Rural Occupations, compiled by Louis S. Murphy should also be consulted for references on this phase of the subject. These have been mimeographed by the U. S. Department of Agriculture.

References to the methods of valuing farm woodlots and properties involving special problems, such as orchards, vineyards, irrigated or drained lands and the like, are scattered. They have been included when found but the list is probably not exhaustive. Forest valuation studies usually relate to the valuing of the trees for logging purposes. References to such studies have been included only when methods of valuing the land were included.

Of the mass of material on the subject of railroad and public utility valuation, only enough has been included to indicate the method of valuing land for such purposes.

Some states and foreign countries have undertaken land classification or other surveys upon which values might be based. References to these have been included when found. Short courses in land valuation have been given by some of the colleges in recent years. References to such courses and the papers, when published, have been noted.

In order to show what has been done in foreign countries, a few available books have been listed, relating principally to European countries. These are arranged alphabetically by the name of the country. Through the London office of the Bureau of Agricultural Economics, suggested lists of books on the subject, published in Great Britain, were received from the British Ministry of Agriculture, the Surveyors' Institution and the Central Landowners' Association. Many of these suggestions have been incorporated in the list for Great Britain. A comprehensive study of the valuation of agricultural property, by Heinz Becker (*Landwirtschaftliche Jahrbucher*, bd. 70, hft. 2, 1929, p. 201-254) was received too late for inclusion but should be consulted by any one interested in valuation systems proposed in foreign countries. It is hoped that this section of the bibliography may be expanded later.

At the end of the bibliography is a list of theses which appear from their titles to relate to real estate valuation. They were selected principally from lists published by the *Journal of Farm Economics* and the *American Economic Review*. Printed theses which were available for examination have been included in the body of the bibliography.

References to a paper by Dr. Richard T. Ely, entitled *Data Necessary for Forecasting Land Values, with Special Reference to Farm Land*, read before the American Statistical Association December 28, 1923, were found in the *National Real Estate Journal* (v. 25, no. 7, Apr. 7, 1924, p. 32) and in *American Fertilizer* (v. 60, no. 4, Feb. 23, 1924, p. 74) but the paper could not be located. A letter from Dr. Ely states that it was never published. A manuscript copy has been received by the library of the Bureau of Agricultural Economics which may be consulted there.

The numbers following many of the entries are the call numbers showing where the reference may be found in the library of the U. S. Department of Agriculture. The initials "L.C." indicate that the book is in the Library of Congress. The initials "E.S.R." at the end of some of the annotations indicate that the note was quoted from the Experiment Station Record. The abbreviation "Agr. Exp. Sta." stands for Agricultural Experiment Station.

Items have been listed but once in the body of the bibliography. The index is intended to bring out references to specific subjects which may be included in the more general works.

Mr. E. H. Wiecking of the Division of Land Economics of this Bureau has given much advice and assistance regarding the scope, contents, and classification of this bibliography. His cooperation is gratefully acknowledged.

November, 1929.

Mary G. Lacy, Librarian,
Bureau of Agricultural Economics,
U. S. Department of Agriculture.

SOURCES CONSULTED

1. Card catalogues of the following libraries:

U. S. Department of Agriculture.
U. S. Department of Agriculture. Bureau of Agricultural
Economics.
Library of Congress.
Interstate Commerce Commission.
Bureau of Railway Economics.

2. Indexes:

Agricultural Index, 1916 - July, 1929.
Experiment Station Record, 1889 - June, 1929.
International Institute of Agriculture. International
Review of Agricultural Economics, 1920 - 1926.
International Institute of Agriculture. International
Review of Agriculture, 1927 - 1928.
International Institute of Agriculture. International
Review of the Science and Practice of Agriculture,
1922 - 1926.
Journal of Land & Public Utility Economics, 1925 - Aug. 1929.
National Association of Real Estate Boards. Proceedings,
1924, 1925, 1927, 1928. (1926 was not available)
Public Affairs Information Service. Bulletin, 1915 - June
22, 1929.
Readers Guide, 1900 - Aug. 1929.
U. S. Department of Agriculture. Bureau of Agricultural
Economics. Library supplement Jan. 16, 1923 - Dec. 28, 1926.
U. S. Department of Agriculture. Bureau of Agricultural
Economics. Agricultural Economics Literature. 1927 -
June, 1929.
United States Catalogue, 1912 - 1928.

3. Bibliographies:

- American Institute of accountants. Accountants' index. A bibliography of accounting literature. [New York?]
American institute of accountants, 1920-1927. 3v.
American society of civil engineers, New York. Library.
Bibliography on valuation of public utilities. [New York, American electric railway association, 1916] 2v. in 1.
Bureau of railway economics. List of references on valuation of railways, Aug. 1, 1916. Washington, D. C. 130p. Mimeographed.
Also published as Bulletin of the American Railway Engineering Association, v. 18, no. 190, Oct. 1916.
Detroit Public library. Selected list of references on appraisal and assessment of real estate [Detroit] April, 1922. 11p.
Lacy, Mary G., comp. Farm land values as affected by increased transportation facilities. August 27, 1923.
Munro, William Bennett. A bibliography of municipal government in the United States. Cambridge, Harvard university press, 1915. 472p.
National association of railway commissioners. Select list of references on the valuation of public service corporations; comp. by Mary M. Rosemond. [n.p., 1912] 25p.
U. S. Dept. of agriculture. Bureau of agricultural economics. Div. of land economics. Land valuation. [A bibliography] Received in Library in 1924. Mimeographed. 9p.

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IMPORTANCE OF THE PROBLEM

1. Anderson, Benjamin M., jr. The weakest point in the farmer's financial policy. (In Chase Economic Bulletin, v.4, no.5, Oct. 23, 1924, p.3-32) 234.8 C38

The appendix (p.24-32) is entitled: First Principles in Land Valuation. "The value of the land is the 'present worth' of the future income from the land, or more precisely the capital value of the land is the sum of the series of the 'present worths' of the future income installments." Factors which complicate this formula for valuing farm land, such as location and home value, are also discussed.

2. Black, Albert G. The provision for agricultural credit in the United States. (In Quarterly Journal of Economics, v.43, no.1, Nov. 1928, p.94-151) 280.8 Q2

"Appraisal methods have not been improved during the past fifteen years. The system now followed - that of having a more or less experienced man estimate the normal selling price of a farm - is the same as that which always has been employed by loaning agencies... The Federal Farm Loan System is in a position to make valuable contributions to appraisal methods, but as yet it has done little except to adopt uniform appraisal blanks and to make some effort to train appraisers, thus unifying practices in various parts of the country...Eventually rule-of-thumb methods will pass, but there is little that points in that direction at present." - p.122-123.

3. Ely, Richard T. Land valuation and our agricultural future. (In Association of land-grant colleges. Proceedings, 38th, 1924, p. 243-254) 4 As7

"Nothing is more important in our present situation than proper valuation of land. Land valuation is based upon yield, present and expected, but it is apt to be inflated or depressed by undue optimism or pessimism. Normally, land value is high in proportion to yield, due to the prestige attaching to land ownership and the general desirability of landed property in times of peace and prosperity. Adverse conditions depress the value of land; this is illustrated by the effect of unfair taxation. Land values are affected by external influences, political and otherwise: undue encouragement or over-stimulation of agriculture and a free land policy depress land values by increasing competition; unplanned settlement lowers values by permitting uneconomic utilization." - Summary.

4. Eveland, H.L. The valuation and assessment of farm lands. (In National Tax Association. Proceedings, 1924, p.201-211) Includes discussion. 284.59 N21

The classification of farm lands as a basis for valuation is urged.

5. Hibbard, B.H., Gray, L.C., and Ely, R.T. Land economics. (In American Economic Review, v.16, no.1, Mar. 1926, supplement, p.284-299) 230.3 Am32

Dr. Hibbard opened this Round Table Discussion with a brief historical sketch of land economics.

Dr. Gray discussed some of the lines of research upon which progress in the solution of existing land problems is dependent. One of these is the subject of land values and valuation. "This subject involves an almost virgin field for replacing a large accumulation of hypothetical assumption and dogmatic theory with the more precise and significant results of modern methods of statistical measurement. At the outset we encounter a most inadequate supply of material for a time series." The work of the Division of Land Economics in this field is described.

Dr. Ely spoke of the need for men trained in land economics.

6. Mertzke, Arthur J. The art of real estate selling requires proficiency in appraisals. (In National Real Estate Journal, v.29, no.9, June 11, 1928, p.42-45) L.C.

"Appraisal methods have been developed to enable us to compute the value of a piece of property with a reasonable degree of accuracy." These methods are discussed in a general way. The author also gives some "superstitions about real estate values."

7. Murphy, T.A. A new era in farm appraising. (In Mortgage bankers association of America. Proceedings, 15th, 1928, p.146-150) 284.9 M84

"In the new era of appraising land it is necessary that the appraiser have some technical knowledge of soils, be able to identify, classify them to a certain extent, and be able to determine the productive powers of each type of soil." Short courses are discussed.

The author gives the three important points in appraising farm land as land (physical characteristics) location, and the borrower.

8. Potter, E.L. Ranch land values, loan statements, and budgets. (In National Wool Grower, v.17, no.3, Mar., 1927, p.23-25. Discussion by Dan Hill, v.17, no.4, Apr. 1927, p.35; and by Vernon Metcalf, v.17, no.5, May, 1927, p.18-19) 45.8 N21N

Urges that values be based on a more accurate knowledge of productive value of the property. The discussion mentions some prices.

9. Preston, H.H. The burden of fixed charges on farm lands. (In American bankers association. Journal, v.17, no.10, Apr., 1925, p. 607-608, 644-645; also in Economic World, n.s. v.29, no.18, May 2, 1925, p.616-619) 284.8 Am3; 286.8 M34

"The author reviews the laws, particularly in North Dakota and Washington, regulating farm mortgage investments and limiting the amount loaned on the value of land and recognizing the principle that fixed charges can be met only out of farm income."-E.S.R. v.53, p.794. The importance of further study of statistical measurements of the relation of land income to land value is urged.

10. Quick, Herbert. The real trouble with the farmers. Indianapolis, Bobbs-Merrill co., 1924. 215p. 280.81 Q4

"When we come to land values - which is another term for what the economists call rent - we come to the Vampire which is really the basic trouble with the farmers."-p.162.

The effect of rising land values is discussed throughout the remainder of the book.

11. Social science research council. Advisory committee on social and economic research in agriculture. Preliminary report of a survey of economic research in agriculture in the United States during the year July 1926, June 30, 1927. Vol. IV [n.p. 1927] 98p. Mimeographed. 281 Sol2

In the section on Land Economics, by L. C. Gray, six projects are mentioned "in which the study of land values and valuation is the paramount objective" (p.74-76).

12. Stanton, Charles A. "The soil and its relation to land appraisals." Address...delivered at the Ohio state university, February 1st, 1926. Columbus, Ohio, [1926] 26p. Pam. Coll.

"The improvement I have to suggest is nothing short of having the land appraisal service of the United States standardized, which I claim can be successfully accomplished by bringing into general use...a standard farm appraisal formula based upon the fertility of the soil and all the fundamental purposes of farming." No formula is given.

13. Thompson, Pell. Real estate appraisals by formula. (In Commerce and Finance, v.16, no.29, July 20, 1927, p.1445-1446) 286.8 C737

"There will come a day when all appraisals will be made on a formula by qualified appraisers who are licensed and members of the real estate boards of their localities." The general items to be considered in appraising new city buildings are listed.

14. Van Sickle, J.V. Classification of land for taxation. (In Quarterly Journal of Economics, v.42, no.1, Nov. 1927, p.94-116) 230.8 Q2

The principles underlying land valuation are mentioned on p. 95-96. The author uses Chambers' formula for capitalizing income. He urges an accurate land survey and a classification and mapping of all lands, such as certain European countries have, as a basis of taxation.

RURAL VALUATION

15. Adams, R. L. Valuing farm lands for purchase. (In Country Gentleman, v.83, no.2, Jan. 12, 1918, p.12)

The producing value of the land and its value as a home should be considered separately. "From a study of any given piece of land, based upon an accurate knowledge of the costs entering into its handling and the possible market for the crops, a clear idea of what it is worth can quite readily be gained."

16. Anderson, T. J., jr. Will land prices go up? (In Farm Journal, v. 51, no.9, Sept., 1927, p.9,43)

"If this analysis is correct we should expect a slow upward trend in land prices for the next two or three decades.

"Everything considered, it seems that the demand forces which would tend to force up farm product prices, and through these prices the price of land itself, have the edge over the supply force which would tend to depress land prices."

Forces considered are population, supply of land, and scientific discoveries.

17. Anthony, C. E. & C. M., Peoria, Ill. Land examiner's guide. [Peoria] 1887. 1 leaf. L.C.

Instructions to the company's land examiners giving points to be covered in reports on farms examined for loan purposes.

18. Appraising land values. (In Wisconsin Farmer, v.56, no.14, Apr. 7, 1927, p.524)

This editorial mentions some of the factors which land appraisers consider in appraising land for loans, such as percentage of tillable land, normal yield of corn and other crops, cost of buildings per acre, distance to market, and road condition.

19. Arnold, J. H., and Montgomery, Frank. Influence of a city on farming. Washington, D. C., 1918. 24p. (U. S. Dept. Agr. Bul. 678.)

Table VI, on p.10, and table IX, on p.13, show value of land per acre of 17 farms at 4-20 miles from Louisville, Ky. Land nearer the city shows a larger value per acre than land farther away.

20. Avery, Cyrus S. How to create a farm land market through construction of paved highways. (In National association of real estate boards. Proceedings, v.7, 1926, p.50-57) Includes discussion. 282.9 N21

"I used to think that an improved highway added from five to fifteen dollars per acre to farm values. I now know from experience, that it adds from twenty-five to one hundred dollars per acre to the value."

21. Belshaw, H. The profit cycle in agriculture; some notes on factors which affect its intensity. (In Economic Journal [London], v.36, no.141, Mar. 1926, p.29-49) 280.8 Ec72

In the section of "Land Values and the Trade Cycle in Agriculture," the author says "the value of land is determined by (a) the rate of interest on farm mortgages, (b) the farm rental of the land at the time as determined by its value as an agent of production, (c) anticipated increases or decreases in the net income of agriculturists...It is an observed fact that land values do not rise to the same extent in all localities, or in regions devoted to different crops. Other things being equal the rise will be greater, (a) the greater the rise in...net income; (b) the smaller the rise in the rate of interest on farm mortgages, and the greater the ease with which credit can be obtained; (c) the fewer the customary or legal restrictions on land transfer; (d) largely dependent on these factors, the degree of speculative activity in land."

22. Bennion, Glynn. Grazing land values. (In National Wool Grower, v.14, no.4, Apr. 1924, p.19-21) 45.8 N21N

"The price that can be paid for grazing land depends, of course, on the amount of forage it produces... Where a prospective borrower's investment in range land passes one-half the amount invested in live stock, bankers of long experience with such loans begin to examine closely into the business before passing on the application."

23. Benedict, M. R. Are land prices too high? (In Dakota Farmer, v.40, no.14, July 15, 1920, p.1319-1320) 6 D14

The author compares the per cent of increase in crops and livestock with the per cent of increase in Iowa farm lands, 1915-1919. He thinks it questionable whether the increased production cost through higher land prices is a good thing.

24. Bestor, H. Paul. Land bank appraisal problems. (In American bankers association. Journal, v.20, no.10, Apr. 1928, p.770, 804-805) 284.8 Am3

"The orthodox points which any loan agency must take into consideration in making farm loans include location, physical property of the farm, earning capacity, sale value and the man himself" (p.804). These are discussed briefly.

25. Black, John D. The division of farm income between landlord and tenant. (In American association for agricultural legislation. Proceedings, 1919, p.6-21) 281.9 Am3P

The author discusses land values briefly, pointing out that "land values are based on future as well as present uses of the land."

26. Black, Albert G., and Black, John D. The principles involved in farm-land appraisal procedure for loan purposes. (In Journal of Land & Public Utility Economics, v.2, no.4, Oct. 1926, p.396-407) 282.8 J82

"It is the purpose of this article to raise serious question whether the practices now followed are so eminently satisfactory, to indicate some lines of attack upon the problem which should lead to considerable improvement, and incidentally to outline a few of the principles that are fundamental to good appraisal and loan procedure."

The present manner of handling appraisal problems is described, as are some of the studies now being made with a view to improving present methods.

27. Bomberger, Frank B. The value of farm lands in Maryland and change of value owing to good roads. (In Md. State tax commission, Biennial report, 2d. 1916/17, p.140-150) L.C.

"Two factors which exercise a controlling influence in determining the value of farm lands...are productivity and accessibility." The author figures the increased value of wheat, corn, and tobacco lands of Maryland on the basis of the value of the increased yield of those crops in 1915 over 1906. He quotes from studies made by the "Office of road inquiry, U. S. Department of Agriculture," to show increased land values in eight counties throughout the United States due to improved roads, and also gives examples of increased values on improved roads in Maryland.

Also published in the "Proceedings of the Conference held under the Auspices of the State Tax Commission of Maryland...in the Court house, Baltimore, Md., Thursday, July 6, 1916, "p.40-49.

28. Booming of land values is menace to agriculture; how high will farm prices go? (In Indiana Farmer's Guide, v.31, no.44, Nov. 1, 1919, p.1989,2002)

Contains charts showing relation of land values to prices.

29. Borrowing money on land. (In Wallaces' Farmer, v.44, no.28, July 11, 1919, p.1351,1356)

Samples of examiners' reports to banks and loan companies are given to illustrate the standards used by conservative concerns in lending money on farm land. Character of operator is emphasized.

30. Brannen, C. O. Taxes in relation to earnings of farm real estate. (In American academy of political and social science. Annals, v. 117, no.206, Jan. 1925, p.41-44) 280.9 Am34

"Market or sale value, it is generally held, results from the capitalization of present and prospective incomes. With census valuations representing market value, it was found for the ten counties surveyed in the North Central States that the rent of 1919 capitalized at the current rate of interest on first mortgages represented approximately 50 per cent or less of market value, and less than 30 per cent in four of the counties."

31. Brossard, E. B. Rural credits in Utah. Logan, 1923, 42p. (Utah. Agr. exp. sta. Circ. 48)

The procedure to be followed in appraising farms for the Federal Farm Loan Board is outlined, and rulings of the Board with regard to appraising orchards, farm lands with underlying minerals, lands under drainage projects, and unimproved lands, are quoted.

32. Buechel, F. A. Agricultural rent in relation to land value in theory and in practice. (In Southwestern political and social science association: Proceedings, 5th, 1924, p.207-218) L.C.

"In conclusion, it may be said that land value is determined not only by the expectation of future rents but by the expectation of the comforts of a home, community development, social relations, education for the children, proximity to nature, speculative returns, and prospective ease or difficulty of payment as influenced by a credit system or taxation. The relative importance of these elements will vary in different sections of the country. There is an urgent need for a scientific method of land appraisal not necessarily to displace but to supplement experience and judgment."

33. Buechel, F. A. The relation between rents and agricultural land values in theory and in practice. College Station, Texas, 1924. 71p. (Texas. Agr. exp. sta. Bul. 318)

Bibliography: p.65-71.

"This bulletin is designed to point out some of the basic facts that are influencing land values and particularly to show the relation that exists between the financial returns from land, or its rent, and the value of the land. Land values are first shown theoretically to be the summation of all future rents discounted at a rate of interest that reflects our preference for the present over the future...The major portion of the bulletin is given over to a statistical study of the relation of rents to agricultural land values in Brazos, Williamson, and Dallas Counties, Texas." - Synopsis (p.4)

34. Buying a farm forty years ago and now. (In Wallaces Farmer, v.42, no.3, Jan. 19, 1917, p.95)

A brief comparison of present prices of farm land, labor, rent, farm products, and things farmers buy, with those paid 40 years ago.

35. Chambers, Clyde R. Agricultural land values and income. (In National Real Estate Journal, v.24, no.16, July 30, 1923, p. 19-21) L.C.

"On present valuations, incomes are less than mortgage rate of interest - at present rate of income further declines may be looked for in land valuation - a study presented before the

Farm Lands Division at the Cleveland Convention."

Table I: "Land values, cash rents, and related factors."

A map shows "ratio of cash rent to farm land value, Jan. 1, 1920."

36. Chambers, Clyde R. Relation of farm land income to farm land value. (In American Economic Review, v.14, no.4, Dec. 1924, p.673-698)

230.8 Am32

The author discusses the relation of market rents to land value, the factors determining relation of land income to current value, the long-time tendency in the ratio of land income to land value, the rate of capitalization, and the actual rate of return on investments in farm lands. Tables and charts are given.

37. Chambers, Clyde R. Relation of land income to land value. Washington, 1924. 131 p. (U. S. Dept. agr. Bul. 1224)

"Data collected in the census of 1920 constitute the basis of this study. In 1920 for the first time the Census Bureau obtained data on the amount of cash rent paid on farms which were leased on the cash basis. This cash-rent figure is here used as a measure of all land income...The value of farm real estate was likewise obtained from the census...In order...to get a check on the census values, data on the average sale price of farm land were obtained from a considerable number of counties. All the average values based on sales prices are based on the considerations stated in deeds...This study is based on 154,653 cash-rented farms in 567 counties...In order to study the long-time relationship between land income and land value further data were obtained from a questionnaire sent to cash-renting landlords. From this questionnaire data were obtained on cash rents for a period of years in several important areas. Data on land values to compare with rent series were then obtained, in part from recorded deeds, and in part from estimates of the Crop Reporting Board of the Bureau of Agricultural Economics."-p.5-6.

Numerous tables, maps and charts are given in this study.

38. Chatburn, George R. Highways lead to higher values of farm land and products. (In Engineering News-Record, v.102, no.1, Jan. 3, 1929, p.22-24.) 290.8 En34

Contains extracts from an article by G. L. Gaddis in the Annals of Real Estate Practice, v.5, 1927, an unpublished thesis by Guy W. Walrod (University of Nebraska, 1922), and G. C. Haas' bulletin "Sales Prices as a basis for Farm Land Appraisal," relating to the effect of good roads on land values.

39. Comparative land values. [Editorial] (In Wallace's Farmer, v.44, no.38, Sept. 19, 1919, p.1800).

Gives table of "Value of land per acre, based on corn yield and per cent of tillable land."

40. Crawford, F. G., and Peck, H.W. Motor vehicles and the highway in New York; a study of social benefits and financial burdens. Syracuse, N.Y., School of citizenship and public affairs, Syracuse university, [1927?] 92p. 288 C85
The amount added to the value of land by the nearness to improved roads is estimated. -p.10-11, 23-43.
41. Donelson, Loren E. Land valuation short course. (In Iowa Homestead, v.74, no.20, May 16, 1929, p.900)
Comment on the short course at Ames, Iowa, May 8-9, 1929, with brief quotations from the addresses of D. H. Doane, E. M. Corwin, William G. Murray, and F. M. Miller.
42. Dugdale, Benjamin H. Mortgage loan values...a few comments on various matters pertaining to real estate mortgages. [Indianapolis, Ind., 1922.] 248p. L.C.
"Briefly stated, the physical foundation of mortgage loan values is made up of the two principal factors of population and fertility of soil, united by the third factor of transportation." These are discussed as they apply to farm and to city land. Chapter XXII is on building cost estimates, and includes a table of estimates for buildings on farms or in small villages. Chapter XXVII is on irrigated land, showing the effect of irrigation on land value. Chapter XXVIII is on drainage.
43. Duvall, L. C. L. The taxation and equalization of city, town and country real estate. Dallas, Tex., W. M. Warlick, 1901. 85p. L.C.
In Chapter IV, (p.69-83) which relates to country property, the author gives percentages to be added to values of land 1 to 4 miles from town or from a railroad. He thinks farm lands should not be valued for taxation on income but on "fair market value." Tax maps are recommended.
44. Eke, Paul A. The price and purchasing power of farm land. (In Journal of Farm Economics, v.7, no.4, Oct. 1925, p.435-444) 280.8 J822
"The prices of farm lands are directly dependent upon the margins of difference prevailing in the present and the margins of difference expected in the future, between the prices received for agricultural products and the costs of production, transportation, and marketing...Prices of farm land will depend in no small degree upon our ability to sell our agricultural surplus upon the world markets."
Charts show indexes of the price and purchasing power of farm land with improvements in the United States, Illinois, Iowa, and three agricultural divisions of the United States for 1913-1924.

45. Ely, Richard T., and Morehouse, Edward W. Elements of land economics. New York, Macmillan co., 1924. 363p. 282 E19E

The following is taken from the summary of Chapter 12, Land Values and Valuation:

"The value of land is derived from the value of the services and commodities that it yields, either directly, for consumption, or indirectly, when it is used for earning an income. The latter is more and more looked upon as the chief basis of land values in so far as they are affected by the demand. Therefore, the income of land is the basis for the determination of its capital value...Capitalization of land income is done by getting the present worth of all the expected future incomes discounted at the current rate of interest. Market values of land often differ from the figures obtained by capitalizing the income. One reason for this in new and rapidly developing countries is because a higher present valuation is put on the land, owing to an expected future increment in value. Another reason is that land income is not constant but changing; its rate and amount of change are affected by the economic forces of custom, competition, monopoly, and public authority. Forecasting of land values for long periods of time must concern itself with those factors which increase or decrease the supply of or the demand for land. The growth of population is the chief factor in creating a demand for the services of land...The purchasing power of the people and their standard of living also greatly affect the demand for land. The supply of land in general is not less than the demand for it, but there is scarcity in the supply of particular grades of land in relation to the demand for those grades of land. This scarcity is due (1) to gradations in fertility and in advantage of location, (2) to the immobility of the land. Area, however, is not a measure of the economic supply of land, since with the same area the economic supply of the services of land can be increased by improving the efficiency of utilization. Other factors also influence the value of land, such as the quantity and efficiency of labor, rates of wages, taxes, and public improvements."

The classification of land is discussed in Chapter 3, and a suggested classification is outlined.

46. Ezekiel, Mordecai. Factors affecting farmers' earnings in southeastern Pennsylvania. Washington, 1926. 64p. (U. S. Dept. agr. Bul. 1400)

Data in this bulletin are based on a survey of 422 farms in Chester County, Pa., which provided details of the farm operations and the financial records of the farms for the year April 1, 1922, to March 31, 1923.

In the section on Methods of Measuring Complex Factors-- Charge for Use of Land, the following tables are given, some of which are illustrated by charts: Charges for use of land and buildings on the "labor income" basis and on the "operator's earnings basis;"

average values and rents on cash rented farms, Chester County, Pa., 1922-23; average value per farm of real estate and buildings; the relation between the different factors and the farm value per acre; frequency distributions of farms according to the values per acre of several items, both including and excluding mushroom farms; values added to Chester County farms by dwellings of various values, for farms of various sizes; net relation of the acre-value of dairy buildings, the type of road, the acre-value of buildings other than dwellings or dairy barns, the crop index, the proportion of the farm level, the percentage of farm tillable, and the distance to town, to the farm value per acre. p.39-54.

47. Farm land boom. (In Wallaces' Farmer, v.42, no.43, Oct. 26, 1917, p.1456)

Editorial calling attention to the farm land boom that "has begun to gather headway." Some prices of farm land are mentioned. "It is right that good corn land...should move up from one to two dollars per acre for each cent of permanent advance in the normal value of corn."

48. Farm land values. (In Wallaces' Farmer, v.49, no.15, Apr. 11, 1929, p.587)

In this editorial it is stated that "hogs must advance to above \$8 at Chicago and corn to above 70 cents on the farm if corn belt land values are to steady and strengthen."

U. S. Department of Agriculture estimates of the value of plow land per acre are given for corn belt states for 1916 and 1920-1924.

49. Farm land values. Land prices in the past. (In Bureau Farmer [Kansas section] v.4, no.2, Oct. 1928, p.21) 280.82 B89

Quotes Prof. Harold Howe of Kansas Agricultural Experiment Station in a forecast of land prices in Kansas based on a study of such prices in the past. "It would seem, then, that for the next five to ten years, there will be no great change in land values except in some areas possessing particular advantages."

"The demand for farm products and the supply of land are among the most important factors to be considered in forecasting land values."

50. Filley, H. C. Why land has risen in value. (In Iowa Homestead, v.64, no.32, Aug. 7, 1919, p.1916)

"When land sells at \$300 per acre the returns must necessarily be large in order that the investment may return a fair rate of interest...The demand for land, because of the security of the investment, the independence of having both a home and a job, and the pride of land ownership have always tended to keep the price of land at a point where the interest returned upon capital is small."

51. Fisher, Ernest M. Farm land appraisal practice. (In National association of real estate boards. Proceedings of the farm lands division, 1924, p.37-97) L.C.

Replies to questionnaires sent by the National Association of Real Estate Boards to appraisers are quoted to illustrate farm land appraisal practices. The following topics are discussed: Basis of appraisals, the farm as a production plant, the farm as a home, the appraisal of farm buildings, and methods of procedure. Tables of approximate life and depreciation of buildings are given on p.95, and a sample score card for farms is given on p.96-97.

52. Fisher, Ernest M. Valuing farms with facts. (In National Real Estate Journal, v.26, no.11, June 1, 1925. p.48-49) L.C.

Sources of data which the farm land dealer should have on file are given, as agricultural colleges and experiment stations, U. S. Department of Agriculture, county court house, and board of supervisors. These data include prices of farm products, production statistics, assessed values, taxes paid, and temperature and rainfall statistics.

53. Forster, G. W. Land prices and land speculation in the Bluegrass region of Kentucky. Lexington, 1922. 39-74p. (Ky. Agr. exp. sta. Bul. 240)

The scope of this investigation "is restricted to the study of the economic and social forces and conditions which tend to influence the prices paid for farm land in a specific region at a time of active speculation." Tables give the average price of farm land with improvements, 1880-1920 (10-year periods); average selling price of farm land and number of sales (1917-1920) in this area; rates of interest received on capital in farms; average net returns per acre and average rate of return on capital invested; and farm income of 176 farmers operating under normal conditions.

54. Fox, John J. Manual of rural appraisement as applied in California. San Francisco, Pacific rural press, 1923. 154p. 282 F832

"This is designed as a handbook for the banker, realtor and investor. The productivity and endurance of land, the extent of its adaptability to various crops, and its convenience to good markets and cheap transportation are deemed the fundamental bases of land valuation. Methods and exceptional problems of the appraisal of agricultural land in California are discussed. A detailed treatment is given of the determination of the value of range, alfalfa, and dairy lands; orchard lands; vineyards; citrus groves; and truck lands and rice lands. A brief discussion is given of agricultural lands as loan security. Appendices contain tables of prices of...agricultural products in California through a period of years, also a list of the principal farmers' marketing organizations in California in 1922 and the State acreage of fruit, nuts, and vines as of 1921." -E.S.R. v.49, p.90.

55. Fox, John J. What is a farm worth and why? (In Pacific Rural Press, v.110, no.7, Aug. 15, 1925, p.151)
Criticism of "Technical Bulletin no. 9, published by the University of Minnesota" (See Haas). The author thinks productive value is the only true value.
56. Fraser, Samuel. That elusive capital. (In Country Gentleman, v.81, no.7, Feb. 12, 1916, p.321,350)
"At a conservative valuation of farm buildings and fences on farms selling at seventy-five dollars an acre, twenty-five dollars an acre is in the buildings and about the same has gone into fences. That leaves the land at twenty-five dollars, which is probably one-eighth of the original cost of clearing it. In other words the capital in our farms has been wiped out two or three times in the past century." Other examples of depreciation of farm land and equipment are also given.
57. Funk, W. C. Value to farm families of food, fuel and use of house. Washington, 1916. 35p. (U. S. Dept. agr. Bul. 410)
Table XXIII gives average total value and annual rental value of farm dwellings and Table XXIV gives average value of house by size of house (number of rooms) in the areas studied.
"Studies conducted by the United States Department of Agriculture indicate that on the farm the amount of money invested in the house is in direct proportion to the income up to a certain point."
58. Fulenwider, L. C. What I do when I appraise a farm. (In National association of real estate boards. Proceedings, 1925, v.7, p. 85-99) Includes discussion. L.C.
"In appraising a farm I study it from three angles - its income, home value, and re-sale value." The author discusses the use of a soil map; valuation of improvements; home value; marketing facilities, including roads; and availability of water supply.
59. Gabriel, Harry S. Index numbers of freight rates and their relation to agricultural prices and production. Ithaca, N. Y., 1925. 37p. (N. Y. Cornell. Agr. exp. sta. Bul. 446)
Tables 30 and 31 show average value and relative value of farm land with improvements, per acre (New York, Ohio, Illinois, Iowa and Idaho, 1912-1923). "The fact that the changes in freight rates did not keep pace with...changes in prices, undoubtedly augmented the variations in land values." -p.37.
60. Gaddis, P. L. Appraising farm lands for loan purposes. (In National association of real estate boards. Proceedings, 1927, v.5, p.198-219) L.C.
Discusses the factors to be considered in appraising farm land for loan purposes and the inadvisability of using the formula method of land valuation.

61. Gaddis, P. L. A policy for Nebraska farmers. II.-Your investment in land. (In Nebraska Farmer, v.71, no.7, Feb. 16, 1929, p.301, 318-320) 6 N27
"After choosing the type of farming desired and a suitable environment, the farmer should pay attention to the particular farm that he is getting. The chief factors he will consider in this connection are: general desirability; location with respect to roads and markets; water supply; size and balance of the farm; soil quality; present condition of the farm; improvements; taxes; what price he should pay; and his ability to pay for the farm. We will consider these factors in the order mentioned."
62. Ginty, Eugene Mabury. Scientific method of appraising farm lands. San Francisco, James H. Barry co., printers 1917. 16 p. 282 G (Pam. Coll.)
"I have attempted to point out the factors that go to make up each element of value, leaving it to the different appraisers to register their opinion in dollars or percentages to be added to, or deducted from, the unit 100 per cent value." Thirty-nine factors are given.
63. Girdwood, Allan C. Valuation. (In Md. State tax commission. Proceedings of the conference held...July 6, 1916, p.33-39) L.C.
"Farm values are subject to a variety of elements, such as transportation facilities, general market conditions, frequency of destructive storms, early and late frosts, adequate or inadequate average rain fall; even after determination of community value farms property in detail is subject to individual value... The only safe rule for the assessment of improvements is reproduction or replacement value."
64. Gray, L. C. Introduction to agricultural economics. N.Y., Macmillan co., 1924. 556p. 281 G796
In Chapter 14, under the heading "Value of land," the author discusses the annual use value, or economic rent, the conditions that make the economic rent high or low, the distinction between economic rent and contract rent, and the capital value of land.
65. Gray, L. C., and Lloyd, O. G. Farm land values in Iowa. Washington, D. C., 1920. 45p. (U. S. Dept. agr. Bul. 874)
In cooperation with the Iowa Agricultural Experiment Station.
"The investigation upon which this bulletin is based was undertaken to determine the extent of increase in prices of Iowa farm lands, with special reference to the year 1919, the causes of the unusual activity in the buying and selling of lands in that year, and the probable effects of this activity upon the farming industry in the State of Iowa." -p.1.
Tables give: Average value of farm land and improvements, by States, 1915, 1919, 1920, and increase per acre and per

cent of increase, 1919 to 1920; Increase in the average value of improved farm land in Iowa from 1850 to March 1, 1920; Average price of improved farm land per acre and percentages of increase in 60 Iowa counties, 1918 to 1919; Sales of farm land, classified according to price per acre; Purchasers and sellers of farms, classified by occupations; Intentions of buyers with respect to farms bought; Classification of motives for sale; Total cash payment, including initial and March 1 payments; Number of purchases involving mortgage indebtedness, classified by per cent of indebtedness to purchase price; First mortgages, classified by duration of loan; Second mortgages, classified by duration of loan; Farm incomes for farms classified by class of tenure; Farm labor income classified by tenure, 1913, 1915, 1918, 1919; Average rentals on 238 Iowa farms, 1918--percentage of average net rentals to average value of farm land and improvements, Mar. 1, 1918, and Mar. 1, 1919; Operators' labor income; Landlord's per cent of net return on investment--economic rent; Comparison of economic rents and contract rents, all tenant farms; Per cent of average net returns of all classes of operators on average value of operators' capital; Percentages of farmers making minus labor incomes and percentages making less than estimated average value of farmers' labor incomes and percentages making less than estimated average value of farmers' labor and supervision; Net worth, March 1, 1919, of farmers classified by ages and tenures.

Reviewed by H. H. Preston in American Economic Review, v.10, no.3, Sept. 1920, p.644-647.

66. Gray, L. C. How to figure what your farm is really worth. (In Farm & Fireside, v.52, no.5, May, 1928, p.17, 24)

In this interview with Dr. Gray an outline of the elements that go to make up the value of a piece of land is given. "To get your starting point for estimating a farm's real value, without any 'water' in the figures, do this: Divide 100 by the prevailing interest rate on first mortgages and multiply the answer by the net cash rental." Other factors mentioned as affecting the value of the farm are productivity, size, lay of the land, distance from shipping point and from markets and improvements.

67. Gray, L. C. Peril to farmers in soaring land prices. (In American Farming, v.14, no.11, Nov. 1919, p.3,16,19)

"Broadly speaking...the price of land is dependent on the net returns that the land will yield over a period of years."

A few prices are mentioned.

68. Gusler, Gilbert. The outlook for farm land values. (In Ohio Farmer, v.154, no.22, Nov. 29, 1924, p.485)

A chart shows the trend of land prices and crop values by 10-year periods, 1850-1924. The article explains the chart, and the author concludes that "farm land prices would probably advance."

69. Haas, G. C. Assessment of farm real estate. (In National tax association. Proceedings, 16th, 1923, p.63-87) 284.59 N21

"The object of this discussion...will be to present a system or method of farm land appraisal which determines in an objective and scientific manner the most probable sale price of a particular farm at a specified date. In order to avoid generalities the presentation will be based upon a concrete illustration of the method as applied by an investigation of land values in Blue Earth County, Minnesota." -p.63. The investigation referred to was published in the author's Sales Prices as a Basis for Farm Land Appraisal (listed below). Tables are given showing yearly average sale price per acre, indices of same, and coefficient of variation for each year, 1916-1919; cross tabulation on basis of state and dirt roads and cost of buildings per acre; cross tabulation on basis of state and dirt roads and distance to market; average value of factors (cost of buildings, productivity index, land-classification index, distance to market) in each class of towns; sample calculations of building cost; building cost per cubic foot; and calculation of productivity index for one farm. A schedule for land appraisal is given and also depreciation tables for frame and brick dwellings, barns, granaries, and other farm buildings.

In the discussion of real estate assessments, p.87-114, Mr. Haas explains some points brought out in his paper.

70. Haas, G. C. Sale prices as a basis for farm land appraisal. St. Paul, 1922. 3lp. (Minn. Agr. exp. sta. Technical bul. 9)

"This bulletin presents a statistical method of correlating the sale prices of 160 farms in Blue Earth County, Minn., which were sold during the period of 1916 to 1919, inclusive, with the factors influencing land prices, namely, value of buildings per acre, type of land, crop yields, distance from market, size of adjacent city or village, and type of road upon which located, and of deriving an equation from which the probable sale price of any other farm land in the same territory may be determined." E.S.R. v.48, p.595.

In the appendix are given depreciation tables for frame and brick dwellings and for barns and other farm buildings.

71. Handschin, W. F. Are land prices too high? (In Orange Judd Farmer, v.68, no.22, May 29, 1920, p.931) 6 Or1

Copied from the "Extension Messenger" of the University of Illinois.

"Earning capacity is undoubtedly the most important single factor in determining the selling price of farm land...Farmers in estimating the value of farm land have tended to capitalize not the actual net earnings, but an amount somewhat larger than the actual net earnings, that is, somewhat over-estimated or inflated net earnings." Examples are given of capitalizing at different rates of interest and on different estimates of net earnings.

72. Harger, Charles Moreau. What is your farm worth? (In Country Gentleman, v.81, no.8, Feb. 19, 1916, p.378,421)
Method followed by an appraiser of farm land for a loan company. The character of the farmer is given special consideration.
73. Harrison, Fairfax. Relation of the railroad and its securities to land values. (In Association of life insurance presidents. Proceedings, 1915, p.23-30) 284.69 As7
Census values of farm land in certain southern states in counties with and without railroads are compared. Values of farm land at different distances from the railroad are also given.
74. Hibbard, Benjamin Horace. The history of agriculture in Dane County, Wisconsin. Madison, 1904. p.67-214. (Wis. Univ. Bul. 101. Economics and political science series, v.1, no.2) 30.9 H52
Thesis (PhD). University of Wisconsin.
In Chapter VI, on land values, the author shows the changes in selling price of land in Dane County from 1845 to 1899 and discusses the underlying reasons for these changes. The necessity for caution in the use of official records of land prices is pointed out. A table of land sales of Dane County gives the number of sales, acres sold, and price per acre for each of 13 years between 1845 and 1899.
75. Hibbard, B. H. The price of land and the future of farming. (In National Stockman and Farmer, v.43, no.41, Jan. 10, 1920, p.1204)
"Theoretically the price of land should always be equal to the capitalized rent." A few prices and incomes are given to show that prices are out of line. The author warns against the land boom and speculation.
76. Holmes, George K. Changes in farm values, 1900-1905. Washington, 1906. 46p. (U. S. Dept. agr. Bureau of statistics. Bul. 43)
Tables, based on the reports described in Bureau of Statistics Bulletin 44 by the same author, show average acre values; percentage of increase or decrease; influences of county characteristics; courses of prices of crops and animals; improvements as an element of value; and aggregate increase in value of farms, 1905 over 1900.
77. Holmes, George K. Local conditions as affecting farm values, 1900-1905. Washington, 1906. 88p. (U. S. Dept. agr. Bureau of statistics. Bul. 44)
Also published (somewhat shortened) in Yearbook, 1905, p.511-532. An adaptation of the Yearbook article is given in E. G. Nourse's Agricultural Economics, p.638-644.
Based on reports from 45,000 state, county and township crop correspondents of the Bureau of Statistics. In addition to the

general discussion, selections from these reports are given by state and county. A statistical summary of these reports is given in Bureau of Statistics Bulletin 43 by the same author.

78. Hopkins, Cyril G. Effect of soil depletion and of soil enrichment on loan values of farms. (In Association of life insurance presidents. Proceedings, 1915, p.81-86) 284.69 As7
The acre value of corn land for different yields at fixed costs is figured to illustrate the subject.
79. Hunter, Byron, and Nuckols, Samuel B. An economic study of irrigated farming in Twin Falls County, Idaho. Washington, 1926. 74p. (U.S. Dept. agr. Bul. 1421)
In table 6, the average value of real estate per acre and the average value per farm 1919-1922 are given for the farms studied. Table 9 shows the approximate earning value of real estate per acre for each of the four years when the net return per acre is capitalized at some given percentage. Tables 22, 28, and 33, give distribution of capital on 40-acre and 80-acre farms, and on dairy farms and orchard farms, 1919-1922.
Three methods of arriving at the value of land are discussed on p.29-31.
Earlier reports on this study were published by the Idaho Agricultural Experiment Station as Bulletins 123 and 132.
80. Huston, Guy. A boom is the worst thing for the farmer. (In Country Gentleman, v.91, no.4, Apr. 1926, p.11, 46, 49)
"The values of farm lands and the profits of farming must therefore be considered for not less than a ten-year period. The nature of the business is such that any figures made or conclusions arrived at on the basis of one year's crop and prices are bound to be confusing and generally wrong."
81. Iowa land values as based on the corn crop. (In Wallaces' Farmer, v.45, no.3, Jan. 16, 1920, p.162)
Chart "Showing how the value of land per acre in Iowa has kept pace with the value of an acre of corn." Years covered are 1868 to 1918, inclusive.
82. Jennett, Clarence B. Farm appraisals must be more than "educated guesses." (In National Real Estate Journal, v.30, no.6, Mar. 18, 1929, p.34-38) L.C.
"Excerpts from his report at the National Association's Birmingham meeting on the standard farm land appraisal form. The form was subsequently adopted by the Appraisal and Farm Lands Divisions." The form is reproduced in the article.
83. Jensen, Ward C., and Russell, B. A. Studies of farm land prices and ownership. Clemson College, S.C., 1928. 50p. (S.C. Agr. exp. sta. Bul. 247)

"This bulletin gives the results of an economic study of farm real estate in Anderson county, a representative cotton area of the Piedmont region in South Carolina." The relation of the value of land to the value of cotton, cost goods (labor, fertilizer, etc.), the general price level, rent, income, prices of industrial stocks, population, and local factors such as weather, pests, etc., is given. Charts show for Anderson County the secular or long-time price of land, based on a five-year moving average, 1893-1925; purchasing power of land and cotton in terms of the general price level, 1890-1926; cyclical movement in land prices based on a twelve-month moving average, 1894-1916; value of cotton and land per acre, 1919-1927; percentage of farms sold and sold on mortgage, based on 185 Anderson farms, 1911-1925. Tables show the figures on which these charts are based, statistics for the county from the 1925 census, and average prices received for farm land, 1911-1925.

84. Johnson, Griff. The appraisal of Iowa farmland values by an insurance company. (In *Journal of Land & Public Utility Economics*, v.2, no.4, Oct. 1926. p.392-396) 282.8 J82

"After more than 20 consecutive years of experience in making first-mortgage loans on Iowa farms, I do not know a formula or fixed rule for comparative land values that would be practical in every-day work...Appraising land values is, after all, a matter of judgment backed up by experience."

The author mentions as specific items to be taken into consideration, the following: soil, marketing practices, incentive of ownership, policy of diversification, access to local markets and to the benefits of community life, and the social or community element (nationality or religious groups).

85. Johnson, O. R. Better tenancy laws are needed. (In *Farm Life*, v. 39, no.10, Oct., 1920, p.8,28-29)

"Studies in Missouri indicate that the high priced land pays in rent returns alone, under all systems, less than 5 per cent. investment, while the extremely low priced land pays a return of 11.6 per cent." In England "they have learned that land is not a commodity to be speculated on but that a 2 per cent or 3 per cent return with little or no profit from increase in value is very satisfactory to the land owner when he knows his investment is safe and is being maintained by a careful tenant."

86. Johnson, O. R., and Green, R. M. The agricultural and market value of Missouri farm lands. Columbia, Mo., 1921. p.46-47 (In *Mo. Agr. exp. sta. Bul.*: 179)

"A plan of obtaining the agricultural value of Missouri farm lands on the basis of 1910 data for average acreage and yields and average prices for the 1900-1910 period, as well as certain cost of production figures, is outlined here, and a partial

report of results including eight counties is given."- E.S.R. v.45, p.292.

Later notes of the progress of this study appear in Bulletins 197 (p.80), 210 (p.64 gives a chart showing sale value of Missouri farm land, 1820-1921), and 236 (p.69 gives a table showing value per acre of Boone county farm land in 1924 and relation between sales and assessed value).

87. King, James A. How I decide what a farm is worth. (In System on the Farm, v.5, no.5, Nov. 1919, p.288-289)

The factors which he considers basic for all types of soil and farming are distance from town, building improvements, and drainage.

88. Kirkman, George Wycherley. Real estate; a comprehensive manual on all branches of the real estate business. Los Angeles, Southland publishing house, inc. [1924] 338p. L.C.

"The Value of Farmlands depends mostly on their distance from population centers, values of crops, and in a lesser degree, upon their proximity to small centers such as a village or town; also always upon kinds of transportation facilities for farm products, in the way of roads and railroads."-p.268.

89. Kuehl, E. G. Appraisals - farm loans. (In National association of real estate boards. Proceedings of the farm lands division, 1924, p.98-101) L.C.

The following factors which have a bearing on farm values are considered briefly: Physical conditions - location, soil and rainfall, topography; marketing conditions - prevailing selling price, sentimental value, markets, roads; living conditions - social conditions, schools and churches, community spirit; individual conditions - income, balance, efficiency.

90. Land economics. (In American Economic Review, v.19, no.1, Mar. 1929, supplement p.45-55) 280.8 Am32

This is a round-table discussion of the effects of public improvements on land values. In the first paper, by Herbert D. Simpson, there is a table showing the effect of increases in supply of land on capitalization of income (hypothetical illustrations) from which the author concludes that the "drop in price of product cannot be a larger proportion of present net rent than the increase in supply is of total supply - without causing an actual decrease in total land value."

91. Land values and prices. (In Wallaces' Farmer, v.45, no.22, May 28, 1920, p.1481) 6 W15

A letter comparing prices of land and of farm products in 1896 and at the present time in Hardin county, Iowa.

A letter commenting on this appears in the issue for July 16, 1920, p.1764.

92. Lee, V. P. Farm mortgage financing in Texas. College Station, 1925. 67p. (Texas. Agr. exp. sta. Bul. 330)

Appraisal methods of farm mortgage companies, joint stock land banks and the Federal Land Bank, in Texas, are outlined.

A sample report of an inspector of the Texas Farm Mortgage and Investment Company is given.

93. Lee, V. P. Principles of agricultural credit. Ann Arbor, Mich., Edwards Bros., 1927. 283p. Mimeographed. 284.2 L512

The factors to be considered in appraising land as a basis for loans are discussed (p.154-155). They include area, physical structure and chemical content of the soil, fertility, climate, and distance to market.

94. Lloyd, O. G. Farm land values in Iowa. (In Iowa. Dept. of agriculture. Yearbook, 1919, p.577-591) 2 Io9R

The author discusses (1) the unusual activity in buying and selling farms in 1919, (2) causes and effects of increase in price of farm lands, (3) agencies to promote farm ownership. Table 1 gives the price of 1414 farm sales by months from January to September, inclusive, 1919.

A summary of this information, with the same title, appears in Wallaces' Farmer, v.45, no.13, Mar. 26, 1920, p.968.

95. Lloyd, O. G. Studies of land values in Iowa. (In Iowa Agriculturist, v.20, no.9, Dec. 1919, p.361-363) 6 Io9

The same article, with slight variations appears in Journal of Farm Economics, v.2, no.3, July, 1920, p.136-140.

"Census data and figures from surveys and other reports with reference to several Iowa counties are tabulated to show the advance in the price of land from 1850 to August 15, 1919, the price per acre, total value, and payments on farms for the years 1917 and 1919, the time and rate of interest for the same years, a correlation of the prices of crops and livestock with the price of land, 1915-1919, inclusive, the labor income and landlord's percentage on the investment on Iowa farms, and the net worth of 204 farmers who reported in 1914. The data presented indicate that buyers of land were thinking in terms of the prices of farm products current at the time, and that regardless of the land paying its way they could afford to pay the price for other reasons.

"In addition answers returned from a questionnaire inquiring the reasons for the advance in the price of land are given, the five principal causes shown being speculation, prices of food products, high returns, the increasing value of the farm home as an institution, and the security of the investment."-E.S.R. v.43, p.593-594.

96. Local taxation as affecting farms. Washington, 1897. 16p.
(U. S. Dept. agr. Div. of statistics. Circ. 5)
Experts visited 1,114 selected farms in the extreme eastern and western sections of New York and obtained from the owner of each farm his personal estimate of the market value of his entire visible property, separating the buildings from the land and also separating from the actual value of the land in its primitive form the value given to it by cultivation. These values are tabulated and discussed.
97. Lyon, Walter Hastings. Investment. Boston, New York, [etc.] Houghton Mifflin co., [1926] 602p. L.C.
Chapter XIV, Farm mortgages (p.220-232) discusses values of farm land, appraisals, etc. in a general way. The information usually required by a farm mortgage banker before making a loan is given as economic status of the borrower; location of the farm, including social advantages and distance to market and railroad; quality of the farm, including soil, water, and buildings; income; and purpose of the loan.
98. McLean, L. A. The appraisal of farm lands. (In National association of real estate boards. Proceedings, v.7, 1926, p.88-94) 282.9 N21
Also in National Real Estate Journal, v.26, no.24, Nov. 30, 1925, p.47-48.
A discussion of appraisal for mortgage loan purposes.
"The value of a farm is arrived at by combining its production value with its value as a home, as the farm performs both functions...The basic requirement is an appraiser possessed of sound judgment, some knowledge of soils, a knowledge of farming, and crop values, a knack of deciding what improvements each farm should have for its proper operation, ability to determine from the condition of the growing crops or the remains of the harvested crops whether the soil is capable of producing an average yield or whether the naturally good soil has been robbed by improper farming methods and ability to discover unerringly whether the farm is on a par with the others in the neighborhood, or better or worse."
99. Martin, Wm. A. Shall I buy the farm? (In Ohio Farmer, v.141, no.16, Apr. 20, 1918, p.559)
Advice to a correspondent about buying a farm. To estimate the proper price he is told to "divide the rent by 6 and multiply by 100."
100. Moore, H. R. Semi-annual index of farm real estate values in Ohio, Jan. 1 to June 30, 1929. Columbus, Ohio, 1929. 10p. (Ohio. State University. Department of rural economics. Mimeographed bul. 19) Mimeographed. 281.9 Oh32
Charts show relation between farm real estate prices, prices of farm products, and rents, 1900-1929, in Ohio.

101. Morison, F. L. The cost of farm real estate maintenance. (In Ohio. Agr. exp. sta., Wooster. Bimonthly bul., v.12, no.2, Mar.-Apr. 1927, p.60-61
"A tabulation of the records of 31 farm owners who were keeping detailed cost accounts of their business for the Department of Rural Economics during the 5 years 1920 to 1924, inclusive, shows that their total real estate charges, exclusive of interest on investment, amounted annually to almost \$700 per farm, or \$5.00 per acre."
102. Newton, R. W., and Hedrick, W. O. Farm real estate assessment practices in Michigan. East Lansing, 1928. 80p. (Mich. Agr. exp. sta. Special bul. 172)
Inequalities in assessments are discussed. The appendix contains a summary of farm real estate assessment procedure in the United States which gives the factors considered in determining farm values in each state.
103. Peck, Millard. Farm values relative to the use of building and loan funds. (In Kansas State league of building and loan associations. Proceedings, 31st, 1927, p.83-92) 284.9 [Ka]
Selling value of land per acre in Kansas is given by sections for 1924-1926. It is indicated that there will not be much change for the next 10 years. "In the last analysis it is the value of products which determines the value of land."
104. Peck, Millard. The future of Kansas land values. (In Kansas Farmer, v.65, no.36, Sept. 3, 1927, p.10,19) 6 K13
Tables show prices of farm lands in the United States since the war; the average value of all farm land in Kansas from 1910 to 1926; prices of farm lands in Kansas by type of farming areas, 1910-1926; and prices of improved farm lands in Kansas by sections, 1923-26, based on bona fide sales and on estimates of crop reporters.
105. Peters, Alfred H. The depreciation of farming land. (In Quarterly Journal of Economics, v.4, no.1, Oct. 1889, p.18-33) 280.8 J2
The depreciation of Eastern farm land is said to be caused by "competition of the West, the purchase of land during the inflation period, the high price and changed conditions of labor, the weight of taxation, the discriminations and extravagant charges of railway companies, the improverishment of the soil, the increased expense of living, and a general disaffection towards the agricultural life."
106. Relation of crop prices to farmland values. (In Farm Implement News, v.40, no.39, Sept. 25, 1919, p.31) 58.8 F22
Summary of address by John A. Cavanaugh, vice-president of the Des Moines National Bank, before the Farm Mortgage Bankers'

Association. "It is his opinion that farming can be conducted on a smaller percentage return on investment than the present average without endangering the farmers' prosperity. For this reason he declares a decrease in the price of farm products will not materially affect land values." The forecasts of price trends by two opposing schools of thought, led by Irving Fisher and R. W. Babson of the Babson Statistical Organization, are quoted.

See also the editorial comment on p.24 of this issue of the Farm Implement News.

107. Robins, Kingman Nott. The farm mortgage handbook. A book of facts regarding the methods by which the farmers of the United States and Canada are financed. Especially intended for investors seeking information regarding investments in farm mortgages. Garden City, N.Y., Doubleday, Page & co., 1916. 24lp. 284.2 R55

Chapter III, on the negotiation of farm mortgages, contains a quotation from a circular of instructions to local correspondents issued by a farm mortgage company which gives the requirements affecting the security of loans. Chapter VIII, on farm mortgage fields and their qualifications, discusses the following qualifications of an ideal farm loan field: Soil, topography, and water supply; climate; crops; population; other factors in determining land values as a basis for loaning; borrowing a profitable practice for the farmer; demand for loans exceeding available funds; a constant, sustained demand for farm lands; general living conditions that are favorable; laws and government.

108. Schneider, George A. California real estate principles and practices. New York, Prentice-Hall, inc., 1927. 92lp. L.C.
Chapter XXIV, Valuation of real estate: p.480-518. "Farm property is possibly the most difficult type of land to appraise... A farm...has worth as an income producer and also as a home... Each of these two aspects must be considered in the appraisal of a farm." Elements to be considered in valuing a farm are listed.

109. Scholz, Karl. Trends in farm land values in the United States from 1912 to 1928. (In American academy of political and social science. Annals, v.142, no.231, Mar. 1929, p.27-43) 280.9 Am34
Illustrated by tables and charts.

Based on data taken principally from E. H. Wiecking's The Farm Real Estate Situation. Charts show trends in per acre farm real estate values in the various sections of the country, 1912-1928. Table V is "Index of relative changes in real values of per acre farm real estate (corrected for price changes) by geographic divisions."

110. Schools and land values. (In Wallaces' Farmer, v.45, no.29, July 16, 1929, p.1776)

Reply to a subscriber who says the consolidated school will lower land values, quoting some figures to show that it is the opinion of many farmers that it increases land values.

111. Stanton, Charles A. Scientific appraisal and agricultural development. (In Nation, v.106, no.2752, Mar. 28, 1918, p.376-377) L.C.

A "formula," consisting of eight steps, is given for appraisal of agricultural land, based on physical condition of the land, income per acre from crop best adapted to the land, value of improvements, and of location. The author criticises the present haphazard methods of appraising farm land.

112. Stevenson, George H. Factors in farm land appraising. (In National Real Estate Journal, v.24, no.15, July 16, 1923, p.34-37) L.C.

"A study upon the subject of standardizing farm land appraisals before the Farm Lands Division, Sixteenth Annual Convention of National Association at Cleveland."

The author gives an example of his method of arriving at the value of farm land for loan purposes, and suggests it as a basis for a score card.

113. Stewart, C. L. Some economic aspects of farm ownership. Washington, 1925. 24p. (U. S. Dept. agr. Dept. bul. 1322)

"A study of trends and variations in some of the financial burdens and benefits of farm ownership in the spring wheat belt over 25 years is presented here. The records of the 16 farms in Cass County, N.Dak., that are used in illustration cover an average of 27 years and are held to be almost perfectly consistent ...Although the selected farms had a smaller investment in buildings per acre relative to the land valuation, the investment per farm was larger than that of the average farm of the State and Nation...Over the 25-year period farm real estate valuations per acre showed an upward movement at the rate of 8.4 per cent yearly."- E.S.R. v.53, p.489.

Tables show farm real-estate valuations per acre for selected farms and for Cass County, N. Dak., and the United States for census years 1880-1920; valuation of buildings per acre and percentage of total real-estate valuation represented by buildings, 1900, 1910, and 1920, for the same groups of farms; summary of rent items, selected farms, Cass County, 1896-1920; arithmetic and logarithmic trends of factors affecting the economic position of owners, Chaffee farms, Cass County, 1896-1920; indexes of correlation between primary net rent and seven ownership factors, 1896-1920; market v. computed valuations, selected farms, 1896-1920.

114. Stewart, Robert. What is land worth? (In American Fertilizer, v. 64, no.8, Apr. 17, 1926, p.30-31) 57.8 Am3

Figures the value of land on the basis of net returns from wheat yielding 20-40 bushels per acre.

115. Stiles, N. L. What we can pay for land. (In Country Gentleman, v.88, no.39, Sept. 29, 1923, p.14)
"If the fairly expected rental value of the farm in question would pay at the present time about 4-1/4 per cent on the purchase price, and he [the buyer] finds himself possessed of property enough to pay the balance above the amount of the first mortgage, then he may feel reasonably safe in making the purchase... Owing to common neighborhood knowledge of conditions on any farm, the rental value held by the farmers of a neighborhood for a certain farm fairly well reflects its productiveness."
116. Stroheker, F. S. Factors in farm land appraisals. (In National association of real estate boards. Proceedings of the farm lands division, 1924, p.77-86) Includes discussion. L.C.
The influence of soils, topography, cost of labor, taxes, freight rates, good roads, and improvements on value is discussed.
Also published in National Real Estate Journal, v.25, no.15, July 28, 1924, p.33-35.
117. Taylor, Clifford C., and Vernon, J. J. Renting farms in Virginia. Blacksburg, Va., 1926. 32p. (Va. Agr. exp. sta. Bul. 249)
The per cent of net cash rent per \$100 value of land is shown in table 3. The authors state that "land values in Virginia doubled between 1900 and 1910 and doubled again between 1910, and 1920... Land in Virginia can not continue to double in value every ten years indefinitely."
118. Taylor, Henry C. Agricultural economics. New York, Macmillan company, 1919. 439p. 281 T21A
Chapter XVIII, The Value of Farm Land and Equipments, discusses factors which affect the value of land.
119. Texas applied economics club. A social and economic survey of southern Travis County...edited by Lewis H. Haney and George S. Wehrwein. Austin, Tex., The University, 1916. 149p. (Univ. of Tex. Bul. 1916, no.65) 281.2 T31
Chapter IV: Productivity and Value of the Land, by Geo. S. Wehrwein, shows the productivity of different soils, relative productivity of farmers, and value of the land. "The attempt to get the true value of the farm land in the area surveyed did not prove very successful." A few prices and average prices are given. Table VI shows the relation between the value of the land and its productivity, and Figure IV is a chart showing the effect of distance from market center on land values. They are explained in the text.
120. Texas applied economics club. Studies in the land problem in Texas...ed. by Lewis H. Haney. Austin, Tex., The University [1915] 181p. L.C.

In the introduction, by Lewis H. Haney, an illustration is given of the value of land based on the production of cotton at 6¢ and 10¢ a pound, the net income being capitalized at 10% and 8%. -p.9-10.

121. Thron, F. M. A local farm real estate price index. East Lansing, 1929. 31p. (Mich. Agr. exp. sta. Technical bul. 96)

"Price data were secured from the records of land transfers in the office of the County Register of Deeds [in Ingham County, Mich.] These transfers were of the same farms and covered a period of 40 years. The farms involved were each visited so that correction for any changes from time to time could be made. Some 700 farms representing 48,838 acres are the basis for the index. Farm price relatives were computed to show the percentage that later sales prices of a piece of land were of the first price. Link-relatives were then computed and these were chained into an index with 1913 as the base. Correlations between movements of state crop prices and of land prices often show a lag on the part of the latter in responding to changes in the former. The dependence of farm real estate prices upon the purchasing power of crop yields is rather plainly indicated." -Summary.

122. Trend of land values. (In Ohio Farmer, v.147, no.24, June 11, 1921, p.750-751)

"The principal factor determining the value of land is its earning capacity." A chart shows a comparison of land prices with crop values per acre for 1899 and 1909-1920. The same article, somewhat abbreviated, appears in the Prairie Farmer, v.93, no.29, Aug. 6, 1921, p.1039, 1055, with the title, Relation of Crop Values to Land Prices.

123. U. S. Department of agriculture. Benefits of improved roads. Prepared by the Office of public roads. Washington, 1912. 20p. (Its Farmers' bul. 505)

In the discussion of the increase in value of farm lands, examples are given of the effect of improved roads on the selling prices of certain farms.-p.15-13.

124. U. S. Federal farm loan board. Annual report. 1-10. Washington, D. C., 1918-1927. 10 v.

The third annual report states that "the farm loan act contains the wise provision that in making appraisals for loaning purposes 'the value of the land for agricultural purposes shall be the basis of appraisal and the earning power of said land shall be a principal factor.' The board had previously construed this provision as making sale price the standard for appraisement on low-priced lands...It had also unsparingly applied the 'earning power' test to high-priced lands where the values were largely the result of climatic or community

advantages." -p.9. The values arrived at by appraisers are compared with actual sales (p.13-16). This information also appears in some of the other reports.

125. U. S. Federal farm loan board. Rulings and regulations of the Federal farm loan board to July 1, 1923 in matters pertaining to the Federal farm loan act. Washington, 1923. 14p. (U. S. Federal farm loan bureau. Circ. 10 Revised) 151.47 C49

"The appraisement of a farm should represent the best judgment of the members of the loan committee as to the value of the land in question, the principal factor being the productivity of the land when used for agricultural purposes, but taking also into consideration the salability of the land and prevailing land prices in that community."

The bases for loans on orchard lands, farm lands with underlying minerals, lands under drainage projects, and unimproved lands are also stated.

126. U. S. Tariff commission. Costs of producing sugar beets. Washington, 1925-1928. 10 pts. 173 T17Cs

Tables showing the average market value of land upon which sugar beets were grown, and estimates of the effect of the sugar-beet industry on land values for the states studied are given as follows: Michigan, Pt. 1, p.59, 77; Ohio, Pt. 2, p. 40, 49; Nebraska, Pt. 3, p. 40, 49 (Rev. ed. p.38, 47); Colorado, Pt. 4, p.60, 79; Utah, Pt. 5, p.54, 73; Idaho, Pt. 6, p.49, 64 (Rev. ed. p.46, 60); Wyoming, Pt. 7, p.40, 49; Montana, Pt. 8, p.40, 48 (rev. ed. p.39, 47); California, Pt. 9, p.51, 68; United States (summary of the above states), Pt. 10, p.80, 96.

127. Wisher, Stephen S. Variations among Indiana counties in land values and roads. (In Ind. Academy of science. Proceedings, 1924, p.143-146) 500 In2

"This is a study by means of four maps of counties, of the relation between land values, assessed valuations of land and lots, and the mileage of surfaced roads." -E.S.R. v.55, p.685.

128. Vogt, Paul L. Introduction to rural economics. New York, D. Appleton and co., [1925] 377p. 281 V86

Some of the more important factors which enter into the value of land for agricultural purposes are considered in chapter IV, Land and Rent, p.46-63. The factors mentioned are climate, topography, soil, distance to market, law of diminishing returns, rent, and value of land for different uses.

129. Wallace, H. A. Fundamental land values. (In Wallaces' Farmer, v.43, no.51, Dec. 20, 1918, p.1853)

"This is a study of the advance in land in Polk county, Iowa, since 1897."

130. Wallace, H. A. Comparative farm-land values in Iowa. (In Journal of Land & Public Utility Economics, v.2, no.4, Oct. 1926, p.385-392) 282.8 J82

"Is it possible to work out a scientific foundation for appraising farm-land values in a state like Iowa? The methods which are set forth herewith are not expected to be of great immediate help to land appraisers in Iowa, but it is hoped that they will contribute something toward determining what factors make the farm land in one section of Iowa worth more or less than the farm land in another section. The facts on which the study is based are figures for the different counties of corn yield (A), percentage of land in corn (B), the percentage of land in small grain (C), the percentage of land which cannot be plowed (D), and the value of land per acre without buildings as estimated both by the Federal census (X) as of January 1, 1925, and the Iowa state census (Y) as of the same date. These figures for the different counties of Iowa are presented in Table I." - p.389.

131. Wallace, H. A. Trend of Corn belt land values. (In Wallaces' Farmer, v.48, no.30, July 27, 1923, p.1032) 6 W15

"The chart herewith presented gives the earning power of 30-bushel corn land year by year as contrasted with the sale value as estimated by the census of the United States Department of Agriculture." The years covered are 1891-1923.

132. Wallace, H. A. Trend of Iowa farm land values. (In Wallaces' Farmer, v.52, no.35, Sept. 2, 1927, p.1113) 6 W15

The author is of the opinion that "the trend of Iowa land values depends more than anything else on the trend of hog values at Chicago in relation to the trend of the general price level." This is illustrated by a graph. Among other influences on land values in Iowa he mentions the rate of return on investment in land, which is now only 2-1/2 per cent; the general downward trend of the price level; and taxes. He also states that "under stable farm conditions with first mortgage rates around 5 per cent there seems to be a tendency for farm land to sell for the value of twenty times the annual rent."

Quoted in Kansas Farmer, v.65, no.38, Sept. 17, 1927, p. 10-11.

133. Wallace, H. A. What is an Iowa farm worth? (In Wallaces' Farmer, v.49, no.1, Jan. 4, 1924, p.3-4) 6 W15

"The big factors in determining land value are the ten-year average yield of corn per acre and the percentage of farm land in corn and small grain." Map II gives these figures by counties. Map I gives the value of farm land per acre in Iowa counties in percentage of the state average.

134. Wallace, H. A. What is Iowa farm land worth? (In Wallaces' Farmer, v.47, no.51, Dec. 22, 1922, p.1517) 6 W15

"In the long run, over the greater part of the state, the selling or market price of farm land tends to approximate the true productive value, which in turn, is dependent on the price of corn, oats, cattle, etc., rate of interest and rate of taxation." A chart shows productive value and sale value of Iowa farm land, 1909-1922.

135. Wallace, H. A. What is Iowa farm land worth? (In Wallaces' Farmer, v.51, no.19, May 7, 1926, p.689-690, 698-699) 6 W15
The author presents a score card for use in determining comparative values of Iowa farm land. It indicates the relative emphasis to be given to (A) the 10 year average acre yield of corn, (B) the percentage of farm land in corn and (C) in small grain, and (D) the percentage of farm land which cannot be plowed. On the basis of this score card the following formula has been worked out: X (the value of Iowa farm land per acre without improvements) equals $3.4 A$ plus $1.8 B$ plus $.6 C$ minus $.6 D$ minus \$74.72. Maps of Iowa show, by counties, percentage 1925 land values are of 1920; value of farm land per acre without improvements as estimated by State census as of January 1, 1925, and by the Federal census of the same date; ten-year average (1914-23) yield of corn per acre; percentage of farm land in corn; percentage of farm land in grain; and percentage of land which cannot be plowed.
136. Warren, G. F. Land values and land prices in the East and in the West. (In N.Y. (State) Bureau of farmers' institutes. Report, 1908-1909, p.69-83) 2 M482R 1910, v.4
"In this address the author points out the extreme importance of capital as a factor in determining the profits that the farmer is able to make... He calls attention to the depreciation of land values and prices in the East as compared with those of the West, showing that land values in New York State depreciated 11 per cent from 1890 to 1900... Tables are given contrasting the average yields and values per acre of the 5 leading crops in representative States of the 2 sections for a period of 10 years... Other data are given contrasting the price of farm lands, the cost of pasture land, and farm crops statistics, together with their values, etc."- E.S.R. v.25, p.894.
137. Warren, G. F., and Pearson, F. A. The agricultural situation. New York, John Wiley & sons, inc., 1924. 306p. 284.3 W25
The value of farm land is discussed in Chapter XXII (p. 227-231), with special reference to the effect on value of inflation and deflation during and after the war.
138. Warren, G. F., and Pearson, F. A. Farm real estate. (In Farm Economics, no.48, Oct. 1927, p.779-780)

"The reason why prices of farm land in states far from market rose more than in states near market, is that with inflation regions far from market receive a greater benefit from failure of distributing charges to rise, than do regions near market. With deflation, and high handling charges relative to retail prices, regions near market suffer least. Prices of land in places near market, therefore, fluctuated less violently than prices in a region far from market."

139. Warren, G. F., and Pearson, F. A. Roads in New York state. (In Farm Economics, no.57, Feb. 1929, p.1046-1061)

Tables give "estimates by farmers living on hard-surfaced roads of decrease in value if farms were removed one mile from such road," and "estimates by farmers living on gravel and dirt roads of increase in value if farms were on stone roads." -p.1053.

140. Weeks, David. Factors affecting selling prices of land in the eleventh Federal farm loan district. (In Calif. Agr. exp. sta. Hilgardia, v.3, no.17, Jan. 1929, p.459-542)

"The purpose of the present study has been to determine quantitative relationships between selling price of land and the factors that affect that selling price, with a view to working toward a basis of more rational farm appraisal, in which quantitative measurements of land qualities may, in part, take the place of rough estimates of the degree to which different land qualities affect value." -Introduction.

The author discusses dynamic economic factors and their significance with relation to land price; principle of relative productive value; an index of productivity; price of land in relation to size of farm and value of buildings; sales prices of dairy farm lands; and statistical method. The discussion is illustrated by 33 charts and 16 tables.

141. Wehrwein, George S. Trend in land values and land utilization. (In American academy of political and social science. Annals, v.117, no.206, Jan. 1925, p.45-51) 230.9 Am34

A discussion of trends of land values, 1860-1924 in various sections of the country.

142. Wells, William M. Guide to land buyers and examiners. [Douglas, Ariz., Dispatch publishing company] 1915. 35p. L.C.

"The object of this book is to teach the most important principles of land values; and to give them in plain English, avoiding technical words and terms...If the prospective land purchaser will only follow the instructions and advice contained in this book...he will never invest money in worthless land." The factors to be considered in buying land are given as: soil, subsoil, rainfall, water supply, climate, buildings, fences, transportation facilities, size of nearest town or city, markets, and the legal title.

143. What is your land worth? [Editorial] (In Illinois Farmer, v.77, no.2; Jan. 15, 1929, p.36) 6 Or
Comment on records kept on "more than 200 central Illinois farms during the last three years" showing land valuation on the basis of output. "Possibly we shall learn to determine the market price of a farm not by the general trend of community land prices but by estimating the capacity of the farmer as a manager and a business man as well as a tiller of the soil."
144. Wiecking, E. H. Changes in the value of farm real estate in the United States 1920-25. A preliminary report. Washington, D. C., November, 1926. (Reprinted, April, 1927) 44p. Multigraphed. 1.9 Ec76Ch
"That the value of American farm real estate underwent marked changes within the last 15 years is too well known to require comment. The Census of January 1, 1920, was taken at the crest of a general price 'boom.' The Census of 1925 was taken in the opposite condition of depression. In an agricultural area as large as the United States, and subject to such diverse economic influences, it is not to be expected that farm real estate values necessarily moved in the same direction; or to the same degree, in all sections. It is the purpose of this report briefly to point out the principal changes, particularly from 1920 to 1925, as shown in the Census reports." -p.1.
In discussing the factors involved in the changes, the author states that "the marked rise in farm real estate values during the World War period and sharp fall in the subsequent depression came in response to a similar movement in the prices of farm products and in farm incomes." Tables and charts show per cent of change in value of farm land and buildings 1920-1925 and 1910-1925; value per acre of farm real estate and buildings Jan. 1, 1925; trends of prices of certain farm products 1919/20-1924/25; trend of gross income from agricultural production 1919/20-1924/25; and building cost indexes, 1917-1925.
145. Wiecking, E. H. The farm real estate situation, 1926. Washington, D. C., February, 1927. 18p. (U. S. Dept. agr. Dept. circ. 377)
Gives changes in the value of farm real estate, 1920-1926, and changes in farm ownership, based on data from the Census reports and from reports of correspondents to the U. S. Bureau of Agricultural Economics. Illustrated by tables and charts showing values.
146. Wiecking, E. H. The farm real estate situation, 1926-27. Washington, 1927, 4lp. (U. S. Dept. agr. Circ. 15)
Supplements Dept. Circ. 377 noted above.
Land values, farm prices, and incomes, 1920-1927, are compared in Fig. 1, and commodity prices and farm real estate values in Fig. 2. Tables show index numbers of estimated farm

real estate values per acre, by geographic divisions and States, 1912-1927; average cash rent, real estate value, and ratio of rent to value in 44 selected counties in Iowa, 1920 and 1925; ratio of average gross cash rent to average value of cash-rented farms in Iowa, 1921-1927, as reported by crop correspondents; comparison of change in value of farm real estate as shown by the census and by the Bureau of Agricultural Economics index, by geographic divisions, 1920-1925, and 1912-1925; relation of taxes to rents on farms surveyed in Michigan, 1919-1925; general property tax and rent per acre on rented farms in Colorado, 1919-1923 and 1925; total and per-acre value of farm land excluding buildings, with percentage of change, by States and geographic divisions, 1920 and 1925; total and pre-acre value of farm land including building, with percentage of change, by geographic divisions and States, 1910, 1920, and 1925; and total and pre-acre value of farm buildings, with percentage of change, by States and geographic divisions, 1920 and 1925.

147. Wiecking, E. H. The farm real estate situation, 1927-28. Washington, D. C., 1928. 63p. (U. S. Dept. of agr. Circ. 60)
"Literature cited": p.62-63.
Supplements Dept. Circ. 15, noted above.
148. Wiecking, E. H. Land-value decline in mid-west greater than drop in earnings. (In U. S. Dept. agr. Yearbook, 1927, p.416-419)
Average cash rent, real-estate value, and ratio of rent to value in 44 selected counties in Iowa (preliminary data from census, 1920 and 1925) are given in a table which is the basis of the discussion.
149. Wiecking, E. H. The relationship of farm buildings and improved roads to land values. [Washington, 1928] 11p. Multigraphed.
"Address before the Land Valuation Short Course, Department of Agriculture, University of Minnesota, St. Paul, June 19-20, 1928."
150. Higder, Clara F. Farm-mortgage interest rates. (In Journal of Land & Public Utility Economics, v.1, no.1, Jan. 1925, p.102-117) 282.8 J82
"This article is concerned with the physical, economic, agricultural, and social characteristics of 15 homogeneous areas in the United States, which tend to explain farm mortgage interest rates therein. The most important correlation with farm mortgage interest rates is said to be their inverse relationship to land values. Physical factors affecting these land values are noted, but emphasis is placed upon economic conditions affecting mortgage rates principally in the way of local surplus funds available as a result of the type of farming, legislation, and taxation." -E.S.R. v.53, p.689.

151. Willard, Rex E. Interest on investment in farm land. (In Breeder's Gazette, v.77, no.16, Apr. 15, 1920, p.1033) 49 B74
The author believes that "interest on investment" should be confined to productive value. Other values in farms are given as "unearned increment, security of investment, and home."
152. Wiprud, A. Clarence. The Federal farm loan system. St. Paul, Minn., Virtue printing co., 1919. 30p. 284.2 W74
This paper, which was presented before the Economics class of the School of Business, University of Minnesota, forms the basis for the following book and contains practically the same discussion of methods of valuation.
153. Wiprud, A. Clarence. The Federal farm-loan system in operation. New York and London, Harper & brothers, 1921. 280p. 284.2 W74F
The method of arriving at the value of farm property and the basis upon which loans are made is discussed briefly. -p.63-68.
154. Wright, Ivan. Farm mortgage financing. New York and London, McGraw-Hill Book co., inc., 1923. 343p. 284.2 W93F
Bibliography: p.249-261.
"These chapters are essentially the elementary conclusions of studies based upon the development of the farm mortgage situation in the United States - from free land to the present vast mortgage indebtedness in three quarters of a century; ... valuation of agricultural lands by different agencies and for different purposes; and the factors affecting the prices of agricultural lands." - Preface.
The author discusses the factors to be considered when studying the valuation of farm lands; namely, soil fertility, location, climate, elevation contour, accessibility, population, nationality, depreciation, legislation, transportation, tariff, and taxation. He also compares the English and American systems of valuation. Chapter XVI, Valuing Lands for the Federal Farm Loan System, gives rulings of the Federal Farm Loan Board on orchard lands, farm lands with underlying minerals, lands under drainage projects, and unimproved lands; and communications from certain of the Federal Land Banks relating to special problems.
155. Youngblood, B., and Cox, A. B. An economic study of a typical ranching area on the Edwards plateau of Texas. College Station, 1922. 437p. (Tex. Agr. exp. sta. Bul. 297)
The basis of land values is discussed on p.149-153. "These values may be classified as follows: 1. Productive value, comprising the grazing value, permanent improvement value, and site value. 2. Personal preference value. 3. Speculative value... This entire question of the different sorts of value that are imputed to ranch lands is raised here not so much for the purpose of complete elaboration at this time, as to enable

the ranchman to appreciate more fully just what he was paying for when he bought his ranch lands."

Table 4 (p.54), based on Census reports, gives land values of Sutton County for Census years in dollars per acre.

FOREST AND WOODLOT VALUATION

156. Bentley, John, jr. Estimating the value of timber in the farm woodlot. (N. Y. Cornell. Agr. ext. Bul. 49, 1922, p.87-112) 275.29 N48E

"It is the purpose of this paper to discuss ways and means of finding out first how much merchantable timber there is on a given piece of land; and secondly, how much that timber is worth in the market, under given conditions."

157. Chapman, Herman Haupt. Forest finance. New Haven, Conn., Press of the Tuttle, Morehouse & Taylor co., 1926. 352p. 99.57 C36

"This text supercedes Forest Valuation published in 1914. The contents have been entirely rewritten and considerably enlarged. The same general method of treatment has been retained, namely, to present in the introductory chapters a short discussion of elementary economic principles as they apply to forestry. In determining either value of property or the rate which can be earned on forest investments it is necessary to understand such elements as the forces which determine prices, the law of marginal values and the true character of interest. The first chapters are devoted to these discussions, with especial reference to the economic difference between a going concern and one in the formative period as this question affects the treatment of interest. The subject of the rate of compound interest in all its bearings on the industry of forest production has been given special consideration. Appraisals of property are dealt with under the three heads of cost value, capital value and market value."- Introduction.

158. Cleyney, E. G., and Brown, R. M. The farm woodlot of southeastern Minnesota; its composition, volume, growth, value, and future possibilities. St. Paul, Minn., 1927. 28p. (Minn. Agr. exp. sta. Bul. 241)

"Owners expressed a great diversity of opinion in regard to the value of their woodlots." The author figures that "each acre of woodlot would pay annually for labor \$2.65, in addition to 88 cents net for stumpage and profit."

159. Massachusetts. Commission on taxation of wild or forest lands. Report...Jan. 1914. Boston, Wright & Potter printing co., state printers, 1914. 98p. ([General court, 1914] Senate. [Doc.] 426) 99.72 M38

The methods of valuing forests and woodlots by assessors are described as "frequently haphazard." Appendix A consists of

tables showing, among other items, total and per acre valuation of woodland, and brush and sprout land, by town or city and county (1913). Appendix B is on The Taxation of Forests in Europe, by Fred Rogers Fairchild. Appendixes C and D are drafts of acts providing for taxation of forest land and for purchase of land for forests.

160. Murphy, Louis S. The misuse of sales in valuing forest property, tentative proposal to promote discussion. (In National tax association. Proceedings, 1924, p.231-236) 284.59 N21
The author calls attention to the fact that sales of cut-over land are frequently speculative and hence not a good basis for arriving at the proper valuation for tax purposes.
"To sum up, then, the several points thus briefly touched upon as weak points in the present-day application of the general property tax to forest property are as follows: (1) the use of unrepresentative sales data; (2) the lack of proper organization and coordination of such sales data as is representative; and (3) in the absence of any such representative sales data, the failure to provide, as a temporary substitute, suitable appraisal means for setting up relative values, not only as between individual forest properties, but as between forest property in general and various other general classes of property." -p.235-236.
161. Roth, Filibert. Business rate of interest and rate made by the forest. (In Forest Quarterly, v.14, no.2, June, 1916, p.255-259) 99.8 F768
"With more extended application of forest valuation in the United States, there comes more and more the desirability, if not necessity, for a decision and agreement concerning the management rate or demanded business rate of interest (Wirtschaftszinsfuß of the German authors). This is not a current rate, but one that is chosen by the business manager as suitable to the character of the particular business, a rate with which the business manager is satisfied, and which he demands or at least attempts to secure from the business, with which he calculates his business results." The author concludes that "the normal forest of Central Europe, in ordinary rotations, makes between 2 and 3 per cent on the sale of the forest."
162. Roth, Filibert. Forest valuation. 2d ed., rev. Ann Arbor, Mich., George Wahr, 1926. 176p. (Mich. manual of forestry, v.2) 99.57 R74
"Literature": p.1-2.
The author discusses the arithmetic of forest valuation; nature and value of the timber crop; risk in forestry; interest rate in forestry; valuation of land or soil; income value of land in forestry; value of soil and forest statics; value of

stand or growing stock in even-aged stand, in regulated or normal forest, and in all-aged forest; relation of capital and income in forestry; rotation; value of stumpage; damages in timber; taxation of forests; fire insurance in forestry; and the right use of land. The appendix contains normal and money yield tables for pine, spruce, oak and beech, compiled by Prof. Adam Schwappach of Germany.

A review of this book by H. H. Chapman appears in Proceedings of the Society of American Foresters, v.11, no.2, Apr. 1916, p.251-254.

163. Woodward, K. W. The valuation of American timberlands. N. Y., J. Wiley & Sons, inc., 1921. 246p. L.C.

"This book...aims to give for the continental United States and its outlying territories the principal facts regarding the timber resources...The investor will find data which will not only enable him to form a notion of what the examination of a tract should cost but he should also get the salient features of the general type of which his particular holdings are but a small part. This work tries to give those basic facts upon which a superstructure of detailed knowledge concerning a particular tract may safely be erected. To the estimator or timber cruiser, likewise, it cannot take the place of first-hand observation as far as the appraisal of any given area is concerned. It should, however, show him what to look for and help him to keep that sense of proportion without which his reports may easily give a wholly wrong impression." -Preface.

Factors affecting the value of timber and of timber land in general are discussed in Chapters 21 and 22, while those affecting the value of each type are discussed in the chapter on that type.

ORCHARD VALUATION

164. Fox, John J. Why fruit lands are capitalized high. (In Pacific Rural Press, v.111, no.3, Jan. 16, 1926, p.71) 6 Pl12

Paper presented at a "recent land economics conference at Berkeley."

The author gives his "reasons for evaluating fruit orchards and vineyards on the basis of income, capitalized at 15 per cent, while lands devoted to dairying and agricultural crops are only valued on the basis of income capitalized at 10 per cent."

165. Howard, W. L. New method of appraising orchards. (In California Cultivator, v.63, no.16, Oct. 18, 1924, p.374)

Description of a demonstration of the method by W. P. Duruz of the Division of Pomology, University of California. A score card is given in which the factors to be considered are grouped under location, site and soil; condition of trees; and condition of the orchard.

166. Howard, W. L. Technical method of appraising orchard values. (In Better Fruit, v.19, no. 6, Dec. 1924, p.10) 80 B46
A score card for judging the value of an orchard is given. It allows 40 points for location, site and soil, 40 for condition of trees, and 20 for condition of orchard.
167. Morman, James B. Farm mortgage loans in general and their relation to the Federal farm loan system. (In Western New York horticultural society. Proceedings, 1918, p.12-18) 81 W52P
"This is an address explaining the ruling of the Federal Farm Loan Board regarding loans on orchard property, as well as the general procedure in obtaining loans under the system." -E.S.R. v.39, p.796.
168. Robinson, Lee. Buying an orchard. (In American Fruit Grower Magazine, v.48, no.1, Jan. 1928, p.10, 33) 80 G85.
Things to be considered in buying an orchard are given as age of trees, water supply, slope of the land, price of the land, convertibility of land to other uses, nearness to market, depth of soil and its nature, drainage conditions, and susceptibility to frost. "The price of a piece of orchard land should be arrived at by calculating the profits it is reasonably likely to produce over the life period of the trees."
169. Tinkham, Horace W. Orchard values in New England. (In Mass. fruit growers' association, inc. Report, 1924, p.143-146) 81 M384
Gives the rule followed by Federal Land Bank appraisers in appraising orchards for loans.
Reprinted in Transactions of the Indiana Horticultural Society, 1924, p.173-175. (81 In2)
170. U. S. Bureau of internal revenue. Bulletin "F" Income tax. Depreciation and obsolescence. Revenue act of 1918. Washington, Govt. print. off., 1920, 36p. L.C.
Basis for computing the depreciation of orchards is given as the cost of the trees at the time the orchard has reached an income-producing stage.

IRRIGATED LAND VALUATION

171. Barnhill, O. H. Cost of developing desert land. (In California Cultivator, v.71, no.8, Aug. 25, 1928, p.173, 195) 6 C12
An example of what it cost one man to develop a half section.
172. New Mexico. College of agriculture and mechanic arts. Extension service. Economic survey and conference, Elephant Butte irrigation district, February, 1927. [State College, N.M., 1927] 44lp. Mimeographed. 281 N46
Table 2. Land values and cost of clearing and leveling on Rio Grande Federal Irrigation Project, 1915-1926. -p.12.
Charts are also given.

173. Teele, Ray P. The economics of land reclamation in the United States. Chicago & New York, A. W. Shaw company, 1927. 337p. 281 T22

"The relation of irrigation to land value" is discussed on p.196-198 and p.225-228. Table 20 gives a "comparison of average value of land per acre with percentage of total acreage irrigated," based on the 1920 census. The "relation between percentage of land in farms irrigated, average acreage per farm, and average value of land per acre" is shown graphically in figure 11. Table 30 gives a "comparison of cost of irrigation works and values of irrigated land, U. S. Reclamation projects."

174. U. S. Department of the interior. Committee of special advisers on reclamation. Federal reclamation by irrigation. Washington, Govt. print. off., 1924. 23Op. (U. S. 68th Cong. Senate. Doc. 92)

Thomas E. Campbell was chairman of the committee.

The acre cost of construction of irrigation projects is given (p.53-58); and the cost of improving and equipping farms on irrigation projects (p.125-127)

175. Weeks, David, and West, Charles H. The problem of securing closer relationship between agricultural development and irrigation construction. Berkeley, 1927. 99p. (Calif. Agr. exp. sta. Bul. 435)

Elements which enter into the cost of the irrigated farm (p.34-65), and capital requirements for creating irrigated farms (p.65-91) are discussed. Elements which enter into the cost are given as price of the raw land, the cost of irrigation construction, taxes paid before the land is irrigated, the cost of improving the land, and interest costs on all these items. Table 14 gives average cost of improvement of seventy farms, and tables 15-19 give itemized costs of developing particular prune, fig, and peach orchards.

URBAN VALUATION AND GENERAL METHODS

176. Adams, Thomas, Lewis, Harold M., and McCrosky, Theodore T. Population, land values and government; studies of the growth and distribution of population and land values; and of problems of government. New York, Regional plan of New York and its environs, 1929. 320p. (Regional survey of New York and its environs. vol. II) 252.61 R26 v.2.
Pt. II. - Land values. (Originally issued as Engineering Series Monograph no.3). "While this report contains some reference to principles and the underlying forces which enter into the creation of [N. Y. City] land values, no attempt has been made by the author to elucidate principles or methods of land valuation." - p.141.
Appendix II to this part is a "Summary of Report on Land Values in New York City made by Dr. Arner in 1921-22," by Helena M. Dickinson.
177. Adams, T. S. Valuation of real estate by the Wisconsin tax commission. (In Minnesota academy of social sciences. Publications, v.1, no.1, 1908, p.78-104) L.C.
Land is valued by the "sales method." Records of sales were compiled as a basis for valuing the land.
178. American society of civil engineers. Final report of the Special committee to formulate principles and methods for the valuation of railroad property and other public utilities. (Its Transactions, v.81, 1917 (paper no.1401), p.1311-1620). Includes discussion. 290.9 Am3
"Presented to the Annual Meeting, January 17th, 1917."
In the conclusions as to the cost of reproducing land holdings, it is stated: "The normal market value of parcels of like size, character, and availability, in the immediate vicinity should be accepted as a basis for reproduction cost determination...The treatment of the valuation of land holdings is not yet thoroughly crystallized, therefore the valuing engineer will do well to confer with counsel upon the interpretation of past Court decisions and the legal principles which are most fairly applicable to the case under review."
179. Appraisal of city real estate. (In Engineering and Contracting, v. 43, no.8, Feb. 24, 1915, p.167-170) 290.8 En39
Contains an abstract of an essay by William E. Davies, entitled Technical Information for Real Estate Experts, published in the Diary and Manual of the Real Estate Board of New York for 1915. The Davies rule is explained and examples of its application are given. The Hoffman, Neill, and Ludlam or Murphy rules are given briefly. The "cubic-foot system" is recommended for valuing buildings.

180. Babcock, Frederick M. The appraisal of real estate. New York, Macmillan co., 1924. 380p. (Land economic series, ed. by Richard T. Ely) 282 B11

"Real estate appraising is now looked upon as scientific and professional in its character. Very little literature has appeared which covers the specific field, and the present volume is presented in an effort to clarify thought in connection with appraisal procedure. The thought has been to give particular stress to the organization of the subject, the development of a set of principles, and the inclusion of all phases of the problem."-Preface.

Chapter IV is on Appraisal Procedure and Methods, and chapter IX is on The Appraisal of Farm Property.

181. Babcock, Frederick M. Appraisal procedure and methods. (In National association of real estate boards. Proceedings of the broker's division, 1924, p.48-56) Includes discussion. L.C.

"All appraisal procedure falls under three successive programs: 1. The data program; 2. The computation program; 3. The report program." In considering the computation program, the author discusses appraisal methods applicable to land directly, such as the "recent transfer method," and the "long time transfer method;" methods applicable to buildings, such as the cost of construction process, reproduction cost process, price comparison method, multiple of rent process and annuity for life process; methods applicable to land and buildings merged; and methods applicable to land through the agency of building value.

182. Babcock, Henry A. Appraising income property. (In National Real Estate Journal, v.27, no.5, Mar. 7, 1927, p.33-40, 72-76) L.C.

"In conclusion, it should be said that the purpose of this paper has been to show by means of examples taken from actual practice, the application to the appraisal of real estate of the broad economic principles involved in the definition: 'The value of a real estate property is the present worth of its estimated future utility.'"

The examples given are from Chicago real estate. It is illustrated with 17 charts.

183. Babcock, Henry A. The ethics of appraising. (In National association of real estate boards. Annals of real estate practice, 1928, p.118-142) L.C.

Includes "Standards of Practice for Realtor Appraisers" submitted to the association, in which three appraisal methods are recognized, one for each kind of value - market, investment, and service. It is recommended that the use of formulas be confined to checking land values by comparison and for the apportionment of taxes on land alone. A glossary of terms is given.

184. Babcock, Henry A. Standardized appraisal practice. (In Mortgage bankers association of America. Proceedings, 15th, 1928, p.119-126) 284.9 M84
An explanation of the "Standards of Practice and Code of Ethics" prepared by the Appraisal Division of the National Association of Real Estate Boards.
185. Benson, Philip A., and North, Nelson L. Real estate principles and practices. New York, Prentice-Hall, inc., 1928. 342p. Public Library.
"Designed primarily as a college text-book."-Preface.
Chapter XIV, The Valuation of Real Estate, (p.158-173) discusses the "general rules for determining land values." The Hoffman and Davies rules for valuing city lots of different depths are also given.
186. Bernard, Alfred Duncan. Some principles and problems of real estate valuation. Baltimore, U. S. Fidelity and Guaranty Co., 1913. 150p. L.C.
Relates to city values only. The author discusses the various rules for valuing lots of different depths and compares them with his own rule. He also gives tables showing percentage of deterioration of buildings.
Reprinted in part in Real Estate Magazine, v.3, no.3, Sept. 1913, p.33-37; no.4, Oct.1913, p.65-71; no.6, Dec. 1913, p.43-47; v.4, no.3, Mar. 1914, p.62-71; no.5, May, 1914, p.36-43; no.6, June 1914, p.42-48; no.10, Oct. 1914, p.62-63.
187. Bingham, Robert F., and Andrews, Elmore L. Financing real estate. Cleveland, O., The Stanley McMichael publishing organization, 1924. 375p. (Realty library, v.5)
Bibliography; p.367-371.
Chap. 5: Valuation in relation to financing.
Not examined.
188. Briggs, H. R. The determination of true values of real estate for the purpose of equalization. (In Wisconsin tax commission. Papers read at annual conference of assessors of incomes and auditors, Jan. 24-26, 1923, p.38-44)
A brief explanation of the sales method of arriving at values is given and objections to it are pointed out. In Dane county a value determined through a soil survey was used in connection with the sales method.
189. Britigan, William H., and Wharton, George W., ed. Practical real estate methods for broker, operator & owner. New York, West side Young Men's Christian association, 1909. 397p.
How to appraise property, by E. H. Gilbert, p.81-91; Points to be considered in valuing a building, by G. R. Davis, p.92-118; The standardizing of real estate valuations, by Irving Ruland, p.

119-121; How property is assessed, by Lawson Purdy, p.167-181;
Davies and Hoffman rules, by W. E. Davies, p.377-384.
Not examined.

190. Brown, Albert O. Common methods of valuing property for taxation. Address...before the Association of New Hampshire assessors, at Manchester, N.H., January 22, 1914. [Manchester? 1914?] 14p. L.C.
The author concludes: "The three principle tests of assessable value have been enumerated in the order of their importance: first, the highest price obtainable at a fair sale; second, the capitalization of net income; and third, the cost of the property."
191. Clark, Frank B. The Walker-Tucker suggestion - an explanation. (In National Real Estate Journal, v.25, no.7, Apr.7, 1924, p.30-32) L.C.
Explains the Walker-Tucker appraisal percentage rule adopted by the Birmingham Real Estate Board.
192. Clark, Frank B. What appraisers should know and study. (In National Real Estate Journal, v.25, no.7, Apr. 7, 1924, p.28-30) L.C.
"A study in the making of real estate valuations, accompanied by the Walker-Tucker unit foot rule, and outlining the factors affecting realty values, five general classifications for improved property, and the three principal problems for appraisers to solve, as presented to Birmingham realtors."
193. Cloos, George W., compiler. Manual for appraising real estate and buildings by approved practical methods, with explanatory key to land values shown on Caspar's official map of the city of Milwaukee. Milwaukee, C. N. Caspar Co., 1916. 59p. L.C.
"The unit values or value per front foot of real estate within the present city limits and East Milwaukee...are based on average sales." The Hoffman-Neill and Milwaukee rules for valuing lots off different depths are given. Valuation of city buildings is also discussed.
194. Cowles, H.V., and Leenhouts, J. H. How to assess property in cities and rural towns. Issued by Wisconsin Tax commission (Madison?) 1914 62p. L.C.
"A plan of assessment for rural towns," by J.H.Leenhouts (p. 41-57) urges use of tax maps, public records and public opinion, in arriving at value.
195. Craigen, George J. Practical methods for appraising lands, buildings and improvements. [New York? 1911] 126p. L.C.
Based on experience in New York City.
"Farm lands should be valued in such a way as to show their frontage value." The Hoffman and Neill rules are briefly described. The chapter on building values contains about 100 illustrations of different types and their values.

196. The Cross Company, Chicago, Ill. Real estate, general brokerage and insurance. Correspondence instruction. Chicago, Ill., The Cross Company, 1908. 15v. in 1.
Lesson 6, on General Brokerage, includes a section on appraising of real estate and other property: The theory of land values is briefly stated and rules for appraising are given. These apply to city property
197. Dorau, Herbert B., and Hinman, Albert G. Urban land economics. New York, MacMillan Co., 1928.^{570p.} (Land economics series, ed. by R. T. Ely) L.C.
In Chapter XXXIII, Urban Land Valuation, (p.524-533) the author distinguishes between value, valuation, and appraisal. "Appraisal is the determination of those facts which should influence judgment of value." He describes two methods of appraisal - by income analysis and by the comparison process which involves plottage, depth rules, corner and alley influence.
198. Ely, Richard T., and others. Urban land economics. Ann Arbor, Mich., Edwards brothers, publishers, 1922. 145p. (Institute for research in land economics) Mimeographed. 282 E19.
Lecture V of the lectures on Land Values by G.B.L.Arner, entitled The Rent of Land and Cost of Housing, (p.106-145) gives a formula for finding the influence of taxation on land values. It is applied to values in New York City.
199. Ely, Richard T., Shine, Mary L., and Wehrwein, George S. Outlines of land economics. Ann Arbor, Mich., Edwards brothers, 1922. 3v. Mimeographed 282 E190u
"Land is valued for the income it yields, psychical as well as material income being included." -p.82.
v.2. Costs and income in land utilization.
Chapter VII, Rent and Value, discusses the bargaining process in the determination of land value; value ultimately a question of population; value and growing wealth; selling value a function of income; interest rate and value; other influences on land value; and the significance of high land value (p.77-84). Appendix I to this chapter gives a definition of "Years' purchase" from a letter by Sir Henry Rew, and Appendix II is a discussion of value and valuation by H.B. Dorau, in which he says that "valuation of land involves little more than the problem of capitalization of an expected income." Appendix I, p.143-148, is "Dr. G.B.L.Arner's Investigation of Land Values in New York City."
200. Fisher, Ernest M. Principles of real estate practice...with a preface by Richard T. Ely. New York, The MacMillan company, 1923, 309p. L.C.
Bibliography: p.279-280.
Chapter VII, The Valuation of Real Estate, (p.101-132), contains a general discussion of the elements which enter into land

value. Tables show structural depreciation, life and depreciation of buildings, percentages of unit value assigned to lots of various depths by different city tax departments, and corner lot values.

201. Garrett, George. Methods of assessment. (In City managers association. Yearbook, 9th, 1923, p.77-85) L.C.

"The methods of assessing real property in Multnomah County Oregon [Portland], are mostly the work of Henry E. Reed...[who] devised a system of his own for appraising the values of buildings and structures and used the Somers system for appraising the value of real estate." These methods are described. His method of building appraisal is based on the number of square feet of floor space.

202. Glover, Charles P. A technique of appraisals of city land values. [Jacksonville, Fla.] Florida association of real estate boards, 1925. 64p. L.C.

"The primary purpose of this book is to state and apply the principles already recognized as fundamental, and to add such new methods as have been evolved in attempting to meet conditions as they exist in Florida cities and towns."

203. Grimes, John Alden, and Craigie, William Horace. Principles of valuation. New York, Prentice-Hall, inc., 1928. 274p. 284 G88

"The objective of this book is the development and comparison of the several mathematical principles which are adapted to the valuation of future income, and a discussion of these principles with respect to their applicability or inapplicability to commercial usage... Valuation may be defined as the act of estimating the worth of, or setting a price upon, anything. Since this is a very comprehensive definition, it is well to state at once that the authors propose to cover only a particular phase of the general subject, that is, the valuation of properties which may be expected to yield future income and which possess worth solely by reason of potential earning power." The authors present several methods expressed in algebraic formulas and illustrated by tables and graphs.

204. Harris, W. Carlton. Practical real estate. Philadelphia, Pa., David McKay Company, 1927. 4 parts. L.C.

Appraisals are considered in Part 4, p.64-93: The author discusses the factors affecting the value of land, including fertility, location, topography, size and shape, interest rate, business conditions, taxation, restrictions, and long term leases. Evidences of value are discussed under the following headings: sales, net earnings, cost, pedestrian count, character of pedestrians, vehicular count, mechanical valuation (including a brief description of the Somers system), kinds of unit value, value of the unit, determining the value of the unit, and depth tables. Most of the illustrations concern city property. Table I gives the average life and annual depreciation of building materials; table II, the

approximate structural and commercial life of different classes of buildings, also the annual structural and commercial depreciation.

205. Hooker, John P. Correct appraisal methods. (In National association of real estate boards. Proceedings, 1927, v.1, p.174-185) L.C.

There are three general methods or theories of appraisal: 1. Determining the value of the land and the buildings as determined separately and without reference to each other or to the income derived from the property. 2. Determining the value by capitalizing the net income. 3. The balanced appraisal which takes into account both methods 1. and 2 and determines the proper relationship between them which gives the fair cash value of the property...

"Only the fair cash value of property is considered in this article, and not the value of property for purposes of taxation, condemnation, insurance, etc."

Five cases of urban property appraised by the three methods are given as illustrations.

Also in National Real Estate Journal, v.27 [i.e.28] no.16, Aug. 22, 1927, p.29-34.

206. Huhn, George P. Method of figuring ground values. Minneapolis, Minn., 1923. 42p. L.C.

Mathematical formulas for finding values of lots of different depths, based on the Davies, Hoffman-Neill, and Somers rules, are given.

207. Hurd, R.M. Principles of city land values. New York. Published by the Record and guide, 1905. 159p. 282 H93

In the preface to the 4th edition (1925) it is noted that it has not been rewritten.

Contents: Chapter I, General principles; Chapter II, Forces creating cities; Chapter III, Locations of cities; Chapter IV, Ground plan of cities; Chapter V, Directions of growth; Chapter VI, Distribution of utilities; Chapter VII, Currents of travel; Chapter VIII, Types of buildings; Chapter IX, Rentals and capitalization rates; Chapter X, Scale of average values; Chapter XI, Summary.

208. Jerrard, L.P. The valuation of land. (In American society of civil engineers. Transactions, v.81, 1917, (Paper no.1392) p.582-644) Includes discussion. 290.9 Am3

"It is proposed to show that land values are fixed by more or less definite forces, and to indicate how, by the systematic collection and application of data, a man unfamiliar with land values...may obtain reliable appraisals...The value of farm lands depends primarily on the fertility of the soil. Other factors are the topography, water supply, climatic conditions, and the development of the community as regards markets, highways, schools, villages, etc."

The paper relates principally to city values. A table gives a comparison of rules for long and short lots (depth rules). These rules are also discussed.

209. Kennan, Kossuth Kent. Report to the Merchants and manufacturers association of Milwaukee on the Somers unit system and the proposal of the Manufacturers' appraisal company to value lots and buildings in Milwaukee. Milwaukee, 1911. 28p. L.C.
The author visited cities where the Somers system had been tried. Objections to the system in these cities are noted.
210. King, Willford Isbell. The valuation of urban realty for purposes of taxation, with certain sections especially applicable to Wisconsin, Madison, Wis. 1914. 113p. (Wis. University. Bul. 689. Economics and political science series v.8, no.2) L.C.
Bibliography: p.112-113.
Contents: Chapter I, The fundamental principles of land valuation; Chapter II, Valuation of land with buildings; Chapter III, The scale of unit values; Chapter IV, The relation of lot depth to value; Chapter V, Alley influence; Chapter VI, Corner influence.
In Chapter II mathematical formulas are given for calculating the value of buildings.
"Value is always directly based on anticipated future income, on services which it is expected will materialize in the future." p.28.
211. Kniskern, Philip W. Making appraisals for loans. (In National Real Estate Journal, v.25, no.14,15, July 14,28, 1924, p.27-30, 29-31) L.C.
"The correct appraisal of any property presents two principal problems. First, to measure all of the net advantage to be derived from ownership; second, to measure the fair cost of getting another like it. The correct appraisal is the lesser of the two."
Relates to city values.
212. Lewis, Harold M., and others. Land values, distribution within New York region and relation to various factors in urban growth. New York, Regional plan of New York and its environs, 1927. 72p. (Regional plan of New York and its environs. Engineering series, monograph no.3) L.C.
The economic factors affecting land values in the New York region are summarized as: real estate speculation; interest and tax rates ("land values tend to decrease as either interest rates or the tax rate increases"); the commodity price index ("land values tend to vary as the commodity price index, other factors remaining constant, but such changes in value lag behind the changes in the index.")-p.12,
213. Lutz, H.L. Somers system of realty valuation. (In Quarterly Journal of Economics, v.25, no.1, Nov. 1910, p.172-181) 280.8 Q2
The essential features of this system as it is applied in Cleveland, Ohio, are briefly described.
214. Macdonald, John F. The real estate guide; or How to make a success of the real estate business. San Diego, Calif., The Macdonald co-operative realty company, inc. [1921] 280p. L.C.

Chapter XVI, How to appraise real estate, rentals, and leases, p.261-270. Factors to be noted in appraising a farm are listed.

215. McMichael, Stanley L.; and Bingham, Robert F. City growth essentials. Cleveland, O., Stanley McMichael publishing organization, 1928. 430p.

"While the present book was originally intended to be a revision of the authors' 'City Growth and Values' the entire book has, as a matter of fact, been reorganized and rewritten."

Part 2 is on "Cities - Their Real Estate Values."

216. Mertzke, Arthur J. Land values and population. (In Journal of Land & Public Utility Economics, v.2, no.3, July, 1926, p.343-354) 282.8 J82

Also reprinted as thesis (Ph.D.) - University of Wisconsin.

"The character or quality of population...exerts a profound influence upon land values."

"The outstanding fact discovered...was the marked lack of correlation between changes in land value and changes in population" in the cities studied.

217. Morman, James B. Farm credits in the United States and Canada. N. Y., Macmillan co., 1924, 406p. (Rural science series) 284.2 M82F

"The appraisal of farm lands for determining the limits of sound mortgage credit both in the United States and Canada is based on their estimated agricultural productivity rather than on their current prices." -p.23. Prices of land are discussed in a general way - also the cost of appraisal for farm-mortgage loans.

218. National association of real estate boards. Appraisal division. Proposed standards of practice for realtor-appraisers. (Corrected to May 21, 1928) 22p. Mimeographed.

Contents: Section I, Definitions; Section II, Standards of practice; Section III, Canons of ethics; Section IV, Glossary of terms.

219. National association of real estate boards. Real estate appraising. Chicago, 1927. 10 chapters. Mimeographed.

The chapters are issued separately and are on the following subjects: Chapter I, Appraising vacant residential property; Chapter II, Appraising a house and lot; Chapter III, Appraising a duplex or double house; Chapter IV, How to estimate value of site and cost of improvements for income property; Chapter V, Building a gross income schedule for income property; Chapter VI, Building an annual expense schedule for income property; Chapter VII, Depreciation and obsolescence; Chapter VIII, Valuation of income property; Chapter IX, Appraisal of leaseholds; Chapter X, Appraisal reports and ethics of appraising.

"This material was collected and organized by Arthur J. Mertzke."

220. New York (City) Department of taxes and assessments. Factors of value of new buildings and explanation of land value maps. [New York, 1912] 22p. L.C.

"The Department uses the method of computing the value of a building by multiplying the square feet of floor surface by an appropriate factor." The factors are given for the different types of buildings. Rentals as a guide to value are also discussed.

In the explanation of the land value maps, the methods of arriving at values are given. These include the use of the Hoffman-Neill rule for lots of varying depths.

221. New York (City) Department of taxes and assessments. Tentative land value maps of the city of New York. New York, 1912-26. 7v. L.C.

Each volume contains maps showing unit value of each lot in the city. The method of arriving at values is noted. It is based on sales data and the Hoffman-Neill rule for lots of varying depths. Published periodically (annually lately).

222. Polleys, Thomas A. Real estate valuations. (In Minnesota academy of social sciences. Publications, v.1, no.1, 1908, p.59-78) L.C.

Discusses the Wisconsin tax commission's method of valuing real estate (based on sales) and also the method used in St. Paul.

223. Pollock, Walter W. An equitable standard for land valuation. (In National tax association. Proceedings, 1913, p.234-285, 449-454) Includes discussion. 284.59 N21

The Somers Unit System of Realty Valuation is described as used primarily in various cities but a brief statement is made on page 249 showing factors to be considered in adapting the system to rural assessments. In the discussion, arguments against this system were given by A. C. Pleydell, and L. Purdy.

224. Pollock, Walter W., and Scholz, Karl W. H. The science and practice of urban land valuation. An exposition of the Somers unit system. Philadelphia, Manufacturers' appraisal co., 1926. 315p. 282 P762

The introductory preface states that the purpose of this book is "to explain and demonstrate the practicability of the use of scientific methods in the appraisal of urban land.

"The fact that land values are community values, created by society at large, and not by the individual owners of land, must be clearly comprehended and appreciated...Accepting this basic fact as true, methods must be devised of expressing and recording community opinion as to relative land values, and the Somers System makes possible the practical use of such opinion for computing individual site values."-p.267.

225. Pollock, Walter W. The Somers system. (In Real Estate Magazine, v.4, no.6, June, 1914, p.60-62; v.4, no.10, Oct. 1914, p.64-67; v.4, no.12, Dec. 1914, p.35-39) L.C.

Discusses the Somers system versus Mr. Bernard's principles.

226. The real estate manual. Bridgeport, Conn., Educational publishing co. [1926] 33p. L.C.

Land valuation: p.23-27. Factors affecting the value of farm land are mentioned, p.24. The various rules for appraising city lots are briefly described.

Building valuation: p.28-30. Applies to city buildings.

227. Reeves, Cuthbert E. The appraisal of urban land and buildings; a working manual for city assessors. New York city, Municipal administration service, 1928. 160p. ([Municipal administration service] Publication no.11) L.C.

This is a "handbook for use in the valuation of urban and other properties where cost of reproduction less depreciation is the principal basis of estimation." Contains figures, formulae and tables for valuation of city land and buildings.

A review of this book by Philip H. Cormick appears in National Municipal Review, v.17, no.11, Nov. 1928, p.680-683.

228. Rosa, Charles Darwin. The Wisconsin real estate sales method of equalization. Paper read before the annual meeting of assessors of incomes, February, 1925. Madison, Wis. [Democrat printing company, 1925] 20p. L.C.

The author points out flaws in the method. In some classes of property there are not enough sales to serve as a guide.

229. Rosewater, Victor. Value in taxation. (In Political Science Quarterly, v.18, no.1, Mar. 1903, p.88-96) 280.8 P75

The author examines the factors usually considered as bases for tax valuations: namely, sale price, offers to buy or sell, cost of production, cost of reproduction, earning power, and capitalization. He concludes that "no one basis of valuation is infallible, but all of them are useful...The most satisfactory assessment of property for taxation will be that made with the fullest knowledge of all the essential factors bearing upon the question of value."

230. Snyder, Blake, and Roby, Ralph West. Fundamentals in real estate. New York and London, Harper and brothers, 1927. 173p. L.C.

"Beneath the various types of real estate transactions are certain general principles which apply to all aspects of the business. These constitute the fundamental principles of real estate value... Real estate values can, of course, only be understood when considered from the point of view of the service which the property is capable, or believed to be capable of giving. Accordingly the authors believe that no distinction is to be made between land and improvements, or between property as a unit and space within the property. Such distinctions, it is recognized, would be essential were one considering assessments, scientific appraisals, etc., but when one is studying what may be termed a deeper strata of the real estate business the differences merge into general principles equally applicable to all. It is only with the general principles that this book deals."-Preface.

231. Snyder, Blake, and Lippincott, Wilmot, editors. Real estate handbook. 1st ed. New York, McGraw-Hill book company, inc., 1925. 724p. Public Library.

"This handbook undertakes to bring together the best principles, methods, and data of modern real estate practice for the reference use of busy real estate men and for the guidance of students of real estate generally."

Chapter VI, The Appraisal of City Property, by James A. Webb, (p.35-63) contains a section on methods of appraising land in which six of the rules for valuing lots of different depths are given. The chapter also discusses the appraisal of city buildings and gives depreciation tables. A bibliography is appended.

Chapter IX, Land Values, by George A. Hurd, (p.87-93) relates to city values.

Chapter XXIII, Irrigated Land, by F. H. Newell, (p.207-223) calls attention to the things to be considered in dealing in irrigated land.

Chapter XXXVII, The Assessment of Real Estate, by Lawson Purdy, (p.335-346) contains a brief discussion on method of land valuation, with special reference to city land.

Chapter XLV, Farm Loans, by Kent O. Mitchell, (p.461-476) discusses in general the factors underlying good farm mortgage security.

232. Somers, W.A. Valuation of real estate for taxation. (In National Real Estate Journal, v.10, no.4, Oct. 15, 1914, p.277-283) L.C.
Description of the Somers system.

233. Spilker, John B. Real estate business as a profession. Rev. ed. Cincinnati, S. Kidd [1923] 363p. L.C.

The art of real estate appraising: p.102-140. Applies to city property particularly, but factors to be considered in appraising farms are listed on p.126. Rules for appraising lots varying in depth are given on p.115-118. They include the 4-3-2-1 rule, the Hoffman rule, and the Lindsay-Bernard rule.

234. Talmage, M.P. comp. Manual on the methods of assessment of real estate in New York City. New York city, M. Oppenheimer, 1917. 37p. L.C.

Chapter 3 gives rules for the valuation of land, including "how a land value map is prepared."

Chapter 4 gives tables used by assessors in preparation of assessments, including the Hoffman-Neill rule, the Somers rule, the Davies rules, and the A. C. Pleydell rule; also rules for valuation of buildings.

235. Timmins, Clark. Selling real estate. New York, D. Appleton and company, 1927. 260p. L.C.

Chapter XII is on appraisement (p.133-150). "In a direct analysis, real estate values depend upon six items, which comprise the basic

laws of appraisement and are applicable to all properties, at all times, and in all places...: location, improvements, transportation, conveniences, elevation, and original cost." The author includes farm real estate in this statement but the book related principally to city real estate.

236. Webb, James A. Basic factors in making appraisals. (In National Real Estate Journal, v.24, no.5, Feb. 26, 1923, p.23-26; no.6, Mar. 12, p.21-24; no.7, Mar. 26, 1923, p.27-29) L.C.
"Paper...before the Thirteenth Annual Convention of the Ohio Association of Real Estate Boards."
Relates to city property. Quotes from C. A. Webb, Zangerle, and Hurd. A list of "Eleven books on the subject of appraisals suitable for board libraries," is given at the end of the third installment.
237. Webb, James A. Fundamentals for appraisals. (In National Real Estate Journal, v.21, no.17, Aug.16, 1920, pp.22-28) Includes discussion. L.C.
Based on books by Alfred D. Bernard, Richard M. Hurd and John A. Zangerle. These and a few other books on valuation are listed at the end of the article. Contains a sample form of appraisal card used by the author; depth table; corner lot percentage table (Zangerle curve); Bernard table of structural deterioration; and table of economic existence of buildings.
238. Wisconsin. Tax commission. Proceedings of the...annual meeting of the supervisors of assessment of the state of Wisconsin. Madison. L.C.
The proceedings of the Fifth to Eighth Annual Meetings, 1906-1909, were the only ones seen. They contain general discussions by the supervisors as to their methods of valuing property, including land. The sales and inspection methods were the ones used.
239. Wyngarden, Herman. An index of local real estate prices. Ann Arbor, University of Michigan, School of business administration, Bureau of business research, 1927. 32 p. (Mich. business studies. vol. I, no.2) L.C.
"The purpose of this study was to find a method of collecting and analyzing data on real estate price movements that would make possible the construction of an index of real estate prices."
The method was applied to prices of real estate in Ann Arbor, Michigan, from 1912 to 1925. Tables and charts show the index and the steps followed in constructing it; also the relation between the index of real estate prices and indexes of enrollment in the University of Michigan, growth of population in Ann Arbor, and the cost of frame building construction.

240. Yoder, Fred R. Introduction to agricultural economics. New York, Thomas Y Crowell co. [1929] 472p. 281 Y7

"Selected references" at end of chapters.

In Chapter V, Land Income and Land Values, the valuation of land on the basis of the rent capitalized is discussed. -p.116-120.

241. Zangerle, John A. Principles of real estate appraising. 2d ed. Cleveland, O., Stanley McMichael publishing organization, 1927. 448p. L.C.

"Actually this constitutes a fourth edition...Several new chapters have been added to this volume, while throughout the book an effort has been made to correlate and assemble in convenient form data referring to specific forms of appraising."--Foreword.

The chapters relating to the appraisal of city real estate include a comparison of several unit foot rules, the appraisal of corner and irregular lots and a discussion of rentals as evidence of capital value. Chapter 17, Appraisal of Acreage and Farm Lands (p.208-217), discusses the method of appraising farm land on the basis of earnings or of income, and concludes that "there is but one way to appraise farm lands and that is by comparison with sales in the neighborhood." A table is given showing rural land percentages for farms of different depths, based on a standard acre 33-1/3 feet front by 1300 feet deep.

The chapters on building appraisal contain tables of costs and depreciation of city buildings.

BUILDING VALUATION

242. Arthur, William. Appraisers' and adjusters' handbook; a handbook for engineers, architects, appraisers...realtors, assessors. 1st ed. New York, U.P.C. book company, inc., 1924. 616p. L.C.

For use in appraising buildings and railroad properties.

"Part I of this Appraiser deals largely with general principles, square and cubic foot costs, percentages of the various kinds of work, comparisons, and approximate estimating...Part II shows how detailed costs may be found."

Depreciation of brick and frame buildings is shown in a table on p.47 in the chapter on Depreciation (Chapter III, p.33-61)

243. Baldwin, H. G. Comparative methods in establishing the value of buildings. (In Mortgage bankers association of America. Proceedings, 15th, 1928, p.127-137). 284.9 M84

"The most logical and accurate premise on which to base conclusions as to the value of buildings is the amount of the investment necessary to reproduce them in their present state of utility; in other words, their cost of reproduction new less depreciation from all causes....I would not minimize the importance of the income factor for a moment, but, as a basis for valuation procedure, it is anything but reliable." Its most serious defects are briefly mentioned. Unit costs per square foot or per cubic

foot are also criticised. The discussion of the inventory method of valuing includes a table giving examples of pricing formulas for brick-veneer building walls.

244. Barnes, Frank E. Estimating building costs. 2d ed. New York [etc.] McGraw-Hill book company, inc., 1927. 592p. L.C.

Chapter XXIX, Appraisal of Buildings, gives tables and curves for use in estimating the cost of reproducing buildings. Buildings are grouped into nine types of industrial buildings.

Chapter XXX, on depreciation, gives formulas and tables for figuring depreciation of buildings.

245. Evers, Cecil C. The commercial problem in buildings; a discussion of the economic and structural essentials of profitable building, and the basis for valuation of improved real estate. New York. The Record and guide co. [1914] 274p. L.C.

City buildings only are considered. In Chapter XIII, Valuations, tables are given showing comparative cost of residences per cubic foot and per square foot of ground covered, and average heights used for cubing (p. 271 and insert facing p.271).

246. Kniskern, Philip W. Practical suggestions for appraising homes. (In National association of real estate boards. Proceedings, 1927, v.1, p.186-223) L.C.

Factors to be considered by the appraiser in computing the unit cost of buildings are discussed, such as utility value, supply and demand, popularity, condition of the building, arrangement of rooms, etc., cost of construction, appreciation of land, and depreciation and obsolescence of building. The mathematics of computing costs of buildings on the basis of the cubic foot unit or the square foot unit is also considered.

RAILROAD AND PUBLIC UTILITY LAND VALUATION

247. Baker, John Earl. Valuation of terminal lands. (In Journal of Accountancy, v.8, no.4, Aug. 1909, p.237-249) L.C.

The author argues that sales of surrounding lands are not a guide to the value of the railway terminal because their value is increased by the fact that they are near the terminal. The value should depend upon what the land would be used for if the terminal were not there.

248. Dudley, Arthur S. The economics of railroad valuation. [Chicago, J. J. Collins & sons, 1928] 94p.

"The best evidence of value or at least the best data for an estimate of value, when obtainable, will be found in the records of actual exchanges." He mentions farms in illustration of this theory. He discusses the capitalization of income and the stock and bond methods of railroad valuation.

249. Expert valuation of railway and other corporate property in Michigan. (In Engineering News, v. 44, no.25, Dec.20, 1900, p.430-435).
290.8 En34
The statement on land valuation was "prepared by Mr. E. C. Dunbar, who was in charge of this part of the work." - p.433. The value was arrived at mainly by summarizing opinions obtained by a questionnaire to men in each county through which the railroad passed
250. Gillette, Halbert P. Some important considerations in right of way valuation. (In Railway Age Gazette, v.58, no.26, June 25, 1915, p. 1483-1484; also in Engineering-Contracting, v.43, no.26, June 30, 1915, p.572-573)
"The value of land is the capitalized prospective ground rental derivable from it." The valuation of railway right-of-way on this basis is discussed.
251. Marshall, H. S. Methods employed by the Bureau of valuation in appraising railway lands. (In Western society of engineers. Journal, v.28, no.10, Oct.1923, p.443-446)
"The question of how to determine the present value of lands used for railway purposes is not answered in the same way by the Federal Commission as it is by the carriers. The former as explained above think that such value is measured by the square foot or acreage value of adjoining lands while the railroads think that the figure is found by finding the market value or cost of acquiring on valuation date of the right-of-way in question or an equally suitable strip."
252. Minnesota. Railroad and warehouse commission. Twenty-fourth annual report...1918. Minneapolis, Syndicate printing company, 1909. 543p. L.C.
Contains a report on the cost of production and the present value of the physical properties of the railroads of Minnesota, by Dwight C. Morgan, p.17-47. A letter of instruction to special agents in securing data as to land values is given on p.26-27. The data are to be secured from records of transfers and from inquiries among real estate men, bankers and business men.
253. National association of railway commissioners. Report of the Committee on railroad taxes and plans for ascertaining the fair valuation of railroad property. [Washington, 1909] 13 p. L.C.
The plan followed by the Minnesota railway commission in valuing railway property in that state is briefly outlined. "To establish the right of way value through the rural districts the actual cost to the companies which had built within the past five years was found to be a fair index. This was found to represent three times the average market value of same lands."

254. Riggs, Henry Earle. The valuation of public service corporation property. (In American society of civil engineers. Proceedings, v.36, no.9, Nov.1910, p.1369-1538. Discussion v.37, no.1, Jan. 1911, p.97-140, and v.37, no.2, Feb.1911, p.205-273) 290.9 Am3P
Describes the methods used in valuing railroad right-of-way in the Michigan state appraisals of 1900 and 1902. Tables give average appraisal and transfer value of country land per acre: p.1420-1432
Mr. J. E. Willoughby and Mr. Kuichling discussed right-of-way values: p.116-119, 232-234.
Also published in Transactions of the American Society of Civil Engineers, v.72, June, 1911, p.1-300.
An abstract appears in Engineering-Contracting v.34, no.24, Dec. 14, 1910, p.534-541.
255. Saliers, Earl A. Principles of depreciation. New York, The Ronald press co. 1916. 200 p. (Ronald accounting series) L.C.
Chapter IX, Land in valuations, p.112-119
Allowance for land in public utility valuing cost of reproduction and sales methods are discussed briefly.
256. Spurr, Henry C., ed. Guiding principles of public service regulation. Rochester, N. Y., Washington, D. C., Public utilities reports, inc., 1924-26. 3v. L.C.
Chapter 27, Land and Buildings, in v.2, discusses the appraisal and valuation of land for rate-making purposes by public utilities companies. On pages 31 and 32 this discussion refers particularly to farm lands. The basis for arriving at these values is market price in the vicinity. Court decisions are discussed and there is a brief quotation from the Interstate Commerce Commission's statement regarding its method of valuing land.
257. U. S. Bureau of the census. Bulletin 21. Commercial valuation of railway operating property in the United States: 1904. Washington, 1905. 88p.
The formal report was prepared by Prof. Henry C. Adams. "The value of railway property submitted in this report was arrived at by capitalizing the net earnings of individual railways and railway systems." Supplement I is on Methods of Valuation by Prof. B. H. Meyer. Supplement II is on Rate of Capitalization, by William J. Meyers.
258. U. S. Interstate Commerce commission. Bureau of valuation. Instructions pertaining to land appraisals, field. Issued by T. P. Artaud, Supervisor land appraisals. Revised to April 1, 1918. Washington, 1926. 30p. L.C.
"The lands of the carrier should be divided into zones of value... In determining the unit of value for the zone the appraiser will generally be governed by the sale, assessment, and opinion data."

259. U. S. Interstate commerce commission. Bureau of valuation. Instructions pertaining to land appraisals, office. Issued by T. P. Artaud, Supervisor land appraisals. Revised to Apr. 1, 1918 [Washington, 1918?] 28n.

Contains sample forms to be used by appraisers in sending reports to the office. Also instructions as to their use.

LAND CLASSIFICATION SURVEYS

260. DeVries, Wade. Correlation of physical and economic factors as shown by Michigan land economic survey data. (In Journal of Land & Public Utility Economics, v.4, no.3, Aug. 1928, p. 293-300) 282.8 J82.

Valuation per acre in farms and valuation per acre of wild land are among the economic factors correlated with the physical factors.

261. DeVries, Wade. The Michigan land economic survey. (In Journal of Farm Economics, v.10, no.4, Oct.1928, p.516-524) 280.8 J822
"The Land Economic Survey has been organized in order to provide maps and an inventory of the resources of northern Michigan." The organization and general method followed are described.

262. Doelle, John A. Classification of farm lands. (In National Association of real estate boards. Proceedings, v.7, 1926, p.116-121) L.C.

The author considers the basic principles underlying farm classification to be accessibility to markets, labor supply, recreational facilities, and soil fertility. He mentions the economic soil survey in Michigan.

263. Lovejoy, P. S. Theory and practice in land classification. (In Journal of Land & Public Utility Economics, v.1, no.2, Apr. 1925, p.160-175) 282.8 J82

The author outlines the history of land classification in the United States and points out the difference between former classifications and the Michigan Land-Economic Survey which he describes at length. "The permanent staff of this survey consists of highly trained, experienced professional men: a forester, a soil surveyor, a land economist, and two general utility aides...The major work consists of three simultaneous surveys which include (1) civil-base data - topography, cover and utilizations, (2) soils, (3) land and related economics."

264. Marshall, Earl A. Classification surveys for assessment purposes in California. (In Engineering News, v.77, no.12, Mar. 22, 1917, p.476-477) 290.8 En34

Describes the maps being prepared to show soil, topography, and crops produced. "In California the type of soil is the most important consideration in fixing land values."

LAND VALUATION SHORT COURSES AND CONFERENCES

265. Land appraisal conference. (In California Cultivator, v.66, no.5, Jan. 30, 1926, p.132-133) '6 C12

Comment on the conference held January 5 and 6 (1926) on the Berkeley campus. (Proceedings of this conference were never published. Notes of the conference are filed with the Federal Land Bank of Berkeley, Calif.)

266. Missouri. Agricultural experiment station. Land valuation. Columbia, Mo., 1927. 79 p. (Its Bul. 255)

"The series of papers published in this bulletin are abstracts of lectures and addresses delivered at the first Short Course in Land Valuation at the College of Agriculture of the University of Missouri, held on July 26 and 27, 1927. The essential content of each lecture or address is presented in this bulletin, but the material has necessarily been condensed." - Introduction.

The papers include the following: Soil characteristics as an index to fertility, by M. F. Miller. - Economic factors determining the physical security of farm loans, by O. R. Johnson. "Land prices in general will not for any considerable period of time be out of line with the capitalized income of that land... Table 2 shows an index of earning ability of some representative counties in Missouri, and when this earning ability was correlated with the reported market value of land in 1909 and 1919 we secured the correlation coefficients shown in Table 3... The long time tendency is very definitely for land values and wages to travel together. It is believed that at least these three measures are of considerable significance in determining whether land values at any given time are much out of line."

Regional and local factors affecting land values and methods of appraising, by D. H. Doane. The regional factors mentioned as affecting value are general location, climate, population, topography, laws, taxes, soils, and type and stability of farm. The brief description of the method of appraisal of the Doane Agricultural Service includes a table to be used in calculating frame building costs and a sample of the field plat used.

Some farm management measures of value in land appraisal, by D. C. Wood. "Our effort in this discussion has been exerted towards demonstrating that the interest paying and loan retiring capacity of the individual farm depends largely on sound farm organization and administration; that the soundness of farm organization and administration can be measured; that a questionnaire directed to supply the figures for such measurement has been in use for many years in practically all states in making farm management studies."

Appraisal problems of the Federal Land Bank, by H. Paul Bestor.

Recent trends in land values and some of the causes, by Henry C. Taylor. The causes mentioned are price relations between agricultural and nonagricultural products, unbalanced production, and the tariff.

The relation of soil type to land utilization and to land values, by H. H. Krusekopf. Characteristics of soils of better and poorer productive value are given.

267. Missouri. Agricultural experiment station. Land valuation II. Columbia, Mo., 1929. 47p. (Its Bul. 269)

"The College of Agriculture has undertaken to develop more basic and accurate methods of evaluating land. In accomplishing its purpose it has invited the cooperation of authorities representing all phases of the subject of land economics... The papers, which have been somewhat condensed in this publication, were read by their authors during the short course in land valuation held July 24 and 25, 1928." -Foreword, by F. B. Mumford.

Papers include the following: Evaluating land for taxation purposes, by J. T. Waddill (p.5-7), in which he says, "At this time it is difficult to determine the cash value of land as there are but few free sales. Statistical information...shows a very small or no net return from farm land. It would therefore be dangerous to adopt the method of capitalization of net earnings as a basis of valuation because under our system of taxation it would impair the public school system in farming communities which would tend to further reduce, if not destroy, the value of land." He quotes, from the Assessor's Manual compiled by the State Tax Commission, the instructions for assessing farm lands.

Soil fertility as a factor in land appraisal, by M. F. Miller (p.29-32).

The effect of farm and community improvements on land values, by E. H. Wiecking (p.32-39). "The types of improvements discussed in this paper will be confined to farm buildings and roads."

The problem of marginal lands, by O. R. Johnson (p.39-42)

The use of soil maps for land appraising, by H. H. Krusekopf (p.42-47).

268. Newman, Ralph. Wrestling with the land valuation problem. (In Pacific Rural Press, v.111, no.3, Jan. 16, 1926, p.70,74) 6 Pl12

Brief report of the Land Appraisal Conference at Berkeley (January 5 and 6, 1926), in which remarks of Professor Adams and Doctor ~~Gray~~ are commented on. See also paper by John J. Fox presented at this meeting. (The proceedings of this conference were never published. Notes of the conference are filed with the Federal Land Bank of Berkeley, Calif.)

269. Reep, Samuel N. The factors of farm appraisal. (In Hoard's Dairyman, v.55, no.23, June 28, 1918, p.958-959)

"Address delivered before the Appraisers' Institute of the Federal Land Bank of St. Paul."

The three traditional factors are given as land, buildings, and ~~personal~~ security, but the author is of the opinion that earning power of the farm is the fundamental factor and the sale factor

is the one next in importance. Buildings should meet the needs of the farm and be valued accordingly. The personal factor determines whether the loan shall be liberal or conservative on the basis of the other factors, or whether it shall not be made.

270. Stevenson, W. H. Soil and land valuation short courses. (In Mortgage bankers association of America. Proceedings, 15th, 1928, p.140-145) 284.9 M84
Describes the course given in Iowa State College, Ames, Iowa.
271. Stevenson, W. H., and Brown, P. E. Soil and land valuation short courses. (In American society of agronomy, Journal, v.21, no.3, Mar.1929, p.279-286). 4 Am34P
Describes the short courses given at Iowa State College, Ames, 1925-1928.
272. Wiecking, E. H. The economic basis of farm land values. [Washington, D. C., 1928] 23p./Ec76Ef
Mimeographed.
"Address before the Land Valuation Short Course of the Department of Agriculture of the University of Minnesota, St. Paul, June 19-20, 1928."
"A useful way of thinking about the composition of land values is to keep in mind a mathematical formula which expresses rather well the economic basis of land value at any given time. That formula...reads as follows: To get the present value of the land (1) divide the present net income by the rate of interest and (2) add to this result, the expected average annual increase in the net income divided by the rate of interest multiplied by itself."

ASSESSORS' MANUALS

273. Arkansas. Railroad commission. Tax division. Assessor's manual, 1927, for the use of county and township assessors of Arkansas. [Little Rock] 1927. 4lp.
Contains instructions as to valuing property, including agricultural land. An illustration of the method of valuing agricultural land capitalizes the rent at 10% and adds the result to a fixed bare-land value. Improvements are to be valued separately and deducted from this total value.
274. Colorado. Tax commission. Instructions to county assessors and syllabus of new and amended laws concerned with the administration of the general property tax enacted by the nineteenth and twentieth General assemblies of the state of Colorado and supreme court decisions. [Denver] 1916. 39p.
"In determining the true value of taxable property, the market value shall be the guide."

275. Jersey City. Bureau of tax assessment. Assessor's manual; rules for determining values of land and improvements, including factors of building values, tables of measurement, depreciation, and standard rules in force. [Jersey City, N. J., 1915] 61p.
These rules for valuing lots of different depths are also explained and illustrated.

276. Kansas. Public service commission. Revised instructions to be observed in the assessment and equalization of property, both real and personal, for the purposes of taxation. Topeka, 1928. 115p. L.C.

In Part XI, Rules for valuing property, it is stated that the assessor "must exercise his own judgment as to values, being aided in arriving at his judgment by such data as he may be supplied with by the county assessor."

277. Maryland. State tax commission. Second biennial report. Baltimore, 1918. 483p. L.C.

"Instructions to assessors of farming lands, lots, etc., outside of incorporated towns." -p.83-85.

Tables give valuations and depreciation of buildings, including farm buildings. -p.95-102.

In the report of the "Conference" of all taxing officials, July 6, 1916, is a paper by Allan C. Girdwood on Valuation (p.133-140), in which he says "farm values are subject to a variety of elements, such as transportation facilities, general market conditions, frequency of destructive storms, early and late frosts, adequate or inadequate average rainfall; even after determination of community value, farm property in detail is subject to individual value."

278. Milwaukee. Tax dept. Manual of tables and rules...in the assessment of real estate, 1926, by Louis A. Arnold, tax commissioner. [Milwaukee, 1926?] 10p. L.C.

To determine unit value, sales, rents and terms in leases are considered. A table of depth factors is given. Rules for corner influence, etc. are given and applied. There is also a table giving unit cost of construction by the cubic foot or square foot of various types of city buildings.

279. Minnesota. Tax commission. Assessors' manual, including assessment laws with questions and answers relating thereto. St. Paul, 1928. 132p.

"Rural or farm appraisal cards" are explained and instructions are given for appraising farm land and buildings, including a table showing building cost per cubic foot.-p.10-13.

280. Missouri. State tax commission. Assessor's manual with questions and answers relating to assessment laws and the equalization of

property for purposes of taxation, 1924. [Jefferson City, Hugh Stephens press, 1924?] 50p. L.C.

"Property - how valued and assessed," (p.26) includes questions on farm land.

281. Rhode Island. Board of state valuation. Report...made to the General assembly, at its January session, A.D. 1874. Providence, 1874. 88p. L. C.

"The principle source of information that the assessors relied upon as a guide in making their valuations was the sales of real estate."

282. Wisconsin. Tax commission. Biennial report. 1st-12th, 1898-1924. Madison, 1899-1924. 252.97 T19

Regulations governing assessors are given briefly in most of the reports.

The 5th report contains a report by W. D. Pence on Appraisal of the Physical Properties of Wisconsin Steam and Electric Railroads (p.187-231). In Appendix "B" the author discusses the valuation of railway terminal lands with special reference to the sales method.

FOREIGN COUNTRIES

283. Bernard, A. Taxation of incomes, corporations and inheritances in Canada, Great Britain, France, Italy, Belgium, and Spain. Washington, 1925. 277p. (U. S. 68th Cong. 2d sess. Senate. Doc. 186)

Includes brief statements of the methods of valuation of land for tax purposes in Belgium, France, Great Britain, Italy, and Spain.

284. Cape of Good Hope. Valuation commission. Report of the Valuation commission. Cape Town, Cape times limited, government printers, 1913. 22p.

Contains a digest of appraisal methods in various countries from which the following is taken:

Prussia. Market value forms the basis of assessment for local purposes instead of the old rental value basis, but in order to encourage agriculture the valuations of farms and forest lands are determined by taking the ascertained producing power as a basis. This, particularly in the neighborhood of large towns, gives a much lower valuation than that based on market value.

France. The valuation of property is under the direct control of a government department. The valuation of land is based on its average net produce during the previous 15 years, the 2 highest and the 2 lowest years being omitted. Buildings are valued by taking the average annual letting value during the

preceding ten years, the 2 highest and the 2 lowest years also being omitted. The valuations of buildings are revised every ten years, those of unbuilt-on land being made at much longer and at irregular intervals.

Holland. The basis is the rental value, but in regard to land which is not rented the value is determined by taking the produce yielded during the preceding seven years, and, where the value of the property cannot be thus determined, its rental value is fixed by comparison with that of adjoining properties of a similar nature. Buildings on farms are assessed at a much lower rate than dwelling houses in towns, the latter being rated on the average annual rental value, whilst factories and other buildings are valued at the selling value, and, if the value cannot be deduced from normal sale prices, it is fixed by comparison with the selling value of similar buildings in other areas.

Italy. Building sites are valued at the amount declared by the owner, under-valuation being checked by the power which the municipality possesses of purchasing the property at the declared value.

British Columbia. Land is valued separately from the improvements, the latter being valued at actual cost and the land at its present cash sale value. Separate rates are fixed for improvements and for the land.

Australia. Under the Commonwealth Land Tax of 1910, the tax is assessed on the valuation fixed by the owner. If the valuation is understated, the Governor-General may acquire the land at the owner's valuation. In the Report of the Commissioner of Land Tax for the year ended 30th June, 1912, it is recorded that the principles of valuation as laid down by the High Court of Australia are as follows:-

(1) Land must be valued with a view to the best purpose for which it can be used.

(2) Land must be valued in the light of the knowledge possessed by a supposititious buyer and seller who are both fully acquainted with its potentialities and disadvantages, if any, as at the date of valuation.

(3) The amounts of profits or losses which actually at date of valuation of a property are being made does not constitute the test of values.

(4) In valuing land under the presumption that the improvements are not existing upon it the valuer in asserting his unimproved value must not ignore the element of value which the improvements have disclosed in the land, but which are not intrinsic in the improvements themselves.

(5) Should there be any special advantage connected with a particular site, such as might be described as a "monopoly running with the land," the value of that advantage as it enhances the sale value of the property is claimable as part of the unimproved value.

New Zealand. All valuations are made by a Government Department through valuers employed and paid by it. The bare of un-

improved land is valued separately from the buildings and other improvements. This unimproved value of land represents the fair selling value of the land at the time of valuation. Buildings and improvements are valued to the extent to which they enhance the value of the land, but not beyond their cost..All objections are heard by an impartial Court of Objections, and if an owner is dissatisfied with the valuation fixed by the Court he can compel the head of the Government Department either to reduce the property to the amount desired by such owner or to purchase at the reduced figure. Government in turn has the same right if the Court reduces the valuation. This system has proved the most satisfactory yet devised.

285. Scheftel, Yetta. The taxation of land value; a study of certain discriminatory taxes on land. Boston and New York, Houghton Mifflin co., 1916. 489p. (Hart, Schaffner & Marx prize essays. XXII) 284.5 Sch2

Bibliography: p.461-483. Brief descriptions of the laws and customs in force in Australasia, Germany, United Kingdom, and Canada, for valuing land for tax purposes, are given in the chapters on taxes in those countries.

The Hoffman-Heillrath and the Somers system of valuation of urban real estate are briefly described on p.335-341.

A discussion of agricultural values (p.351-358) includes tables showing the following: rental value of agricultural land in the United Kingdom, 1750-1904; average price of farm land per acre in the United Kingdom 1781-1880 (averages given in 10-20 year periods); value of arable land in France for 1817, 1879, 1881, and 1895; increase in the value of farm property and in agricultural production in the United States, 1850-1910 (census figures); and increase in the value of rural land in Australasia, 1878-1913.

"Since an early period, the 'cadastral' system of assessment has served a useful purpose. Not only for tax purposes, but for statistical, juridical, political, and military purposes, the 'Domesday Book' was of invaluable assistance to the government. In modern times, however, an extensive system of accurate valuation and registration of the land by the central government, so far as we know, exists nowhere." - p.330

AUSTRIA

286. Van Sickle, J.V. Taxation of land in Austria. (In Journal of Land & Public Utility Economics, v.1, no.2, Apr. 1925, p.215-225) 282.8 J82

"The Austrian land tax of 1869, which is still in force, provides for an accurate survey of all lands, their classification, and their assessment on the basis of the average net income of the lands of each class. The lands are divided into 8 main classes as to cultivation, and each of these into 8 classes as

to fertility. The average net incomes from lands were determined for each of the 64 classes based on the average prices and average expenses of cultivation from 1855 to 1869, excluding the 5 years of highest prices. These cadastral figures were to be revised in 1896, and every 15 years thereafter. It required 13 years and \$12,000,000 to complete the assessment work. Each plat of land was allocated by a committee from a local commission. The work of the committees was reviewed by the full local commission, the provincial commission, and finally by the central commission at Vienna with a view to insuring equality between plats, districts, and provinces." - E.S.R. v.55, p.381.

CZECHOSLOVAKIA

287. Textor, Lucy E. Land reform in Czechoslovakia. London, George Allen & Unwin, Ltd., 1923. 157p. 282 T313.

"Expropriated estates, then, are to be paid for without exception. Compensation is to be based upon the average price in the open market during the years 1913-1915, inclusive, of land exceeding 100 hectares in extent... It was evident from the very first that great care must be taken in determining exactly what the average price was during the years 1913-1915. This task was entrusted to experts whose elaborate tables fix definitely the amount to be paid for different kinds of land. According to these tables the price is determined, on the one hand, by the different zones of production - beets, cereals, potatoes, fodder - and on the other hand, is based on the kind of land, land without buildings, land with building, vineyards, wooded areas...

"The capital tax on the same estate is to be determined by tables based upon the value of land before the war, as measured by smaller and therefore higher priced areas, and an additional 75 per cent of the value arrived at in this way is to be added as representing the increase since 1914." -p.95-100.

FRANCE

288. Caziot, Pierre. Expertises rurales et forestières; traité pratique d'estimation de la propriété rurale. Paris, J.-B. Baillière et fils, 1917. 396p. 282 C31

This is a technical discussion of the theory and practice of land valuation in France. The author says that it is the first book of its kind to be published. He calls attention to the fact that it was written just prior to the world war.

289. Caziot, Pierre, La valeur de la terre en France. Paris, J.B. Baillière & fils, 1914. 450p. 33.17 C31

Gives "a history of farm land values in France, a review of factors influencing fluctuations in price, and detailed descriptions of conditions in all sections of the country." - E. S. R. v.40, p.892.

290. New valuation of landed property. (In International Institute of agriculture. Bureau of economic and social intelligence. Bulletin v.3, no.4, Apr. 1912, p.215-231)

A study of declines in land values in France based upon partial results of the decennial revaluation of land for tax purposes, and upon certain private studies. Gives tables of values in limited areas of different types of land, with comparisons with earlier periods.

GERMANY

291. Aereboe, Friedrich. Die beurteilung von landgütern und grundstücken. Ein lehrbuch für landwirte, volkswirte, kataster-~~und~~ steuerbeamte, gebäudetaxatoren, angestellte ländlicher kreditanstalten usw.... 2. aufl., 3., unveränderter abdruck. Berlin, P. Parey, 1924. 535p. 282 Ae8.

This is the second edition of a book written in 1912. It discusses valuation for taxation of large farms and independent pieces of land, livestock, agricultural products, buildings and farming accessories of all kinds.

292. Aereboe, Friedrich. The value of landed property. Based on its net revenue, its purchase price, and the credit that it commands. (In International institute of agriculture. Bureau of agricultural intelligence and of plant-diseases. Bul. v.3, no.11, Nov.1912, p.2342-2348) 241 In82

"It is clear that the calculation of the net revenue of landed property based on book-keeping, even considered as a simple aid for the valuation of the revenue conditions of the future, can only be used very conditionally...This so-called valuation according to revenue (Ertragswert), is impracticable, unscientific and indefensible...It is evident that a change in the usual way of considering these matters is imminent and that a radical revision of the whole subject...becomes necessary."

293. Golts, Theodor Alexander Ludwig Georg, Freiherr von der. Landwirtschaftliche taxationslehre. 3. umgearb. aufl. Berlin, P. Parey, 1903. 670p. 284.5 G58L

A comprehensive study of the underlying principles and the practical application of the various methods of land valuation from which the conclusion is drawn that the method must vary according to the end in view. The first part of the book is general in scope. The second deals specifically with methods of land valuation.

294. Holdefleiss, Paul. Landwirtschaftliche taxationslehre und reinertragsveranschlagung...2..neubearb. aufl. Berlin. P. Parey, 1922. 155p. 281 H71

"Literaturübersicht": p. [8]

In this textbook, the author discusses valuation of agricultural property, emphasizing the fact that not only must land,

buildings, machinery, livestock, etc., be taken into consideration but also the capital involved and the time and energy of the farmer. There can be no economic value in land used for agriculture without some effort on the part of the owner or farmer. The necessity of valuation is discussed in case of sale or leasing or mortgaging of property or for purposes of taxation or expropriation, and methods of valuation of gardens, fields, pastures, forests, farm buildings, livestock, machinery, fertilizer, and of the soil and its fertility are outlined.

295. Offenberg, L. Die bewertung ländlicher grundstücke. Schätzungslehre und schätzungsrecht nebst einföhrung in das preussische schätzungsamtsgesetz vom 18 juni 1918, für behörden, schätzungsämter, schätzer, land-, forst-, und volkswirte. 2., gänzlich Neubearb., aufl. Berlin, P. Parey, 1924. 173p. 284.5 Of2

Contains a description of the methods of valuation of land hitherto employed in connection with expropriation, indemnification, mortgages, insurance, taxation, etc. It points out the necessity for assessing property according to its present economic value instead of, as heretofore, laying emphasis on the actual value of the profit from it, and urges the application of the general principles underlying valuation to the somewhat devious methods used in connection with forest lands.

296. Schnider, August. Beschaffenheits-, ertrags- und wertsberuteilung (bonitur) landwirtschaftlicher grundstücke. Ein lehrbuch für ausübende und studierende landwirte, vermessungs-, kultur- und verwaltungsbeamte, von August Schnider... unter mitwirkung von H. v. Welz. Freising-München, F. P. Datterer & cie, 1925. 261p. 282 Sch5

"Fachschriften über bodenbonitur und verwandte gebiete": p. 246-251.

An abstract in English by Theodor Holm is on file in the U. S. Bureau of Agricultural Economics Library.

The appraisal of agricultural lands is discussed under the following headings: A. The importance of appraisal of agricultural lands. This includes a statement of the different purposes of appraisal including appraisal for purposes of taxation. The systems of appraisal and taxation in Bavaria and Württemberg are described in some detail. B. Consideration of the quality of the land in making appraisals. C. The time, labor, equipment and various means for appraising land. D. Methods of appraising land. E. On the appraisal of meadowland. F. On the appraisal of pastures.

GREAT BRITAIN

297. Bright, Tom. The agricultural surveyor and estate agent's handbook. 2d ed. rev. London; Crosby Lockwood, 1911.
Not seen. Suggested by the British Ministry of Agriculture.
298. Bright, Tom. The Agricultural valuer's assistant. A practical handbook on the valuation of landed estates, including ~~examples~~ of a detailed report on management and realisation; forms of valuations of tenant right; lists of local agricultural customs; scales of compensation under the agricultural holdings acts and a brief treatise on compensation under the lands clauses acts..5th ed., with appendix containing a digest of the agricultural holdings act, 1908, together with the full text of the act, and practical commentary thereon. London, C. Lockwood and son, 1910. 308p. 282 B76.
Includes, among others, tables for calculating the values of estates or cultivations; the values of manures and feeding stuffs; the contents of stacks of hay, corn and straw; the contents of unsquared timber; and the contents of standing timber.
299. Central association of agricultural and tenant-right valuers. Annual report of the council and statement of account, 1st-18th, 1910/11-1927/28. London, 1911-1928. 10 C332.
Discussions of questions of interest to agricultural valuers in the United Kingdom, including court decisions. Tables of manorial values are given in the 3d and 4th reports, and the question is frequently discussed.
300. Central association of agricultural and tenant-right valuers. Report of annual meeting, 5th-15th, 1914-1924. London, 1914-1924. 10 C332R.
The report for 1914 contains a report of Messrs. Voelcker and Hall as to compensation for manorial values, with their revised table published in October, 1913. The application of this table is discussed in the 6th report.
The report for 1917, contains an address by Dr. J. Augustus Voelcker on The Valuation of Manure Produced by the Consumption of Hay.
301. Copland, Samuel. Agriculture, ancient and modern. London, Virtue and Company, [1866?]. 2 v. 30.9 C793.
"There are various causes operating to affect the value of land: such as the relative proportion between the quantity of land and the number of inhabitants; the scarcity or abundance of money; the existence of good roads; the distance from markets, etc."
v. 1, p. 24.
Land values in certain sections of England from the time of the Domesday Book are quoted.

302. Central chamber of agriculture, London. Reports of the Committee appointed to draw up a Scale of compensation for unexhausted improvements. 1903 and 1908.
Not seen. Suggested by the British Ministry of Agriculture.
303. Cooke, Layton. The agricultural referee and guide to the valuation of real property, etc. London, 1850. 250 p.
Not seen. Suggested by the British Ministry of Agriculture.
304. Cragg, A. R., and Marchant, J. R.V. Hints to young valuers: a practical treatise on the valuation of property. 4th ed. London, Land agent's record, 1912. 1104p.
Not seen. Suggested by the British Ministry of Agriculture and the Surveyors' Institution.
305. Curtis, C.M. The valuation of land and houses. 6th ed. by Sydney A. Smith. London, The Estates Gazette, ltd., 1925.
Not seen. Suggested by the British Ministry of Agriculture, the Surveyors' Institution, and the Central Landowners' Association.
306. Davies, Clement Edward. Land valuation under the Finance (1909-10) act, 1910. The new land duties, licensing duties, stamp duties and alteration in death duties...with practical examples in valuation by Cuthbert J. Lake, F.S.I. 2d ed., London, The Estates Gazette, limited, 1910. 436p.
307. Evans, D. Owen. The land and mineral taxes of the Finance 1909-10 act, 1910, annotated, discussed and explained by D. Owen Evans...and Wilfrid A. Barton...With a chapter on practical valuation...London, Sweet and Maxwell, limited, 1910, 310p. L.C.
In chapter 6, land valuation is discussed under extent, object, procedure and machinery of valuation.
308. Fletcher, B. Valuations and compensations. 4th ed. London, B. T. Batsford, 1913. 446p.
Not seen. Suggested by the British Ministry of Agriculture.
309. Gardiner, R. Strachan. The agricultural landowner's handbook on taxes, rates, tithe rent charge and the death duties (England and Wales). 2d ed. London, Central Landowners' Association, 1927.
Not seen. Suggested by the Central Landowners' Association.
310. Jackson, Thomas Challice, ed. Jackson's agricultural holdings; being the agricultural holdings act, 1923, and the allotments act, 1922...together with a manual on tenant-right valuation, by W. Hanbury Aggs. 6th ed. London, Sweet and Maxwell, ltd., 1924. 392 p. 30.5 J13.
The author has attempted "to discuss in a series of essays the salient problems raised by "the Agricultural Holdings Act, and to "describe the influences that have caused variations in customs of valuing, and particularly the newer methods adopted in the valuation of feeding stuffs and manures" - Preface to first edition. Includes tables showing cost of a man per day; costs of

- 1 acts of cultivation; scales of compensation of unexhausted manures; and the composition, manurial, and compensation values of feeding stuffs.
311. Mitchell, G.S. Valuation of agricultural tenant right. London, Estates gazette.
Not seen. Suggested by the British Ministry of Agriculture.
312. Parry, R. The application, use and construction of valuation tables. 2d ed. by L. B. Gumbrell. London, Estates gazette.
Not seen. Suggested by the British Ministry of Agriculture.
313. Scotland. Board of Agriculture. The residual values of feeding stuffs and fertilisers. Report by a Joint committee of Scientific and professional men. Edinburgh, 1928. 13p. (Misc. Publication No. 7) 10 Sco334
Suggested by the British Ministry of Agriculture.
Revision of Voelcker and Hall's tables.
314. Skrimshire, Samuel. Valuations. London, Spon & Chamberlain, 1915.
Not seen. Suggested by the Surveyors' Institution.
315. Webb, Clarence Albert. Valuation of real property; a guide to the principles of valuation of land and buildings, etc. for various purposes, with numerous examples...4th ed. rev. London, C. Lockwood and Son, 1925. 260p. L.C.
Contains discussions of principles of valuation, valuation for mortgage, for rating and for taxation, timber measuring and valuing; valuation tables. The principal points influencing the value of a farm are summarized on p. 18-19.
316. White, James Dundas. Land-value policy. London, United Committee for the taxation of land values, 1924. 205p. L. C.
Discusses the evolution of land value principles and the growth of land value legislation in various countries, and suggests the adoption for Great Britain of a system based on annual land value, i.e., "the best annual rent which could reasonably be obtained for the land, irrespective of any improvements on it, if it were leased for the longest possible term with full freedom of use, on the assumption that all rates and taxes for the land-value would be payable by the lessor."
317. Wood, Leslie S. The principles and practice of farm valuations. 4th ed. rev. London, The Estates Gazette, Ltd., [1922?] 326p. 282 W85.
This is a text-book for students of tenant-right valuing in Great Britain under the Agricultural Holdings Acts. It contains chapters on the agreement; the inventory; customs of the country; cultivations; hay and straw; compensation under the acts; compensation for improvements; farm yard and artificial manures; compensation for feeding stuffs; fixtures, implements and stock; market gardens; dilapidations and deterioration; records of holdings and arbitrations. The

various acts are given in full in the appendix. Formulas are given for calculating the value of hay in stacks (p.129-130). Tables of valuation of foods per ton as manure are given on p. 192-193, and of food consumed on page 198.

The Surveyors' Institute lists a 5th edition (1929).

318. Wood, Leslie S., Phillips, G. O., and Davies, C.E. Farm valuations and the agricultural holdings act, 1908. 3d ed. London, Estates gazette, 1912. 695p.
Not seen. Suggested by the British Ministry of Agriculture.

INDIA

319. Crosthwaite, H. R. Cooperative land mortgage credit for India. (In Agricultural Journal of India, v.15, no.1, Jan. 1920, p. 16-31) 22 Ag83
Factors which affect the market value of small holdings in India are given as productive capacity of the soil, location of various parts of the holding, and the vagaries of the laws. -p.20.

ITALY

320. Albani. Giuseppe. Discussion as to the method of effecting valuations. (In International Review of the Science and Practice of Agriculture, v.7, no.8, Aug.1916, p.1168-1171)
Abstract from Il Monitore Tecnico, 22d year, no.7,8, Mar. 10,20, 1916, p.97-100, 117-120.
"An examination of the fundamental principles which prove the utility of the analytic method in valuation, and determine the limits of accuracy between which theories of valuation may be accepted in practice...Valuation should not resort to other methods than the analytic except for roughestimates, and should always maintain some doubt as to the accuracy of the results if they are not corroborated by a thorough examination, the direct consequence of which is to lead to an analysis. If it be borne in mind that analysis is, and should always be, the means by which the results are obtained or checked in the course of time, it may be doubted whether there really exist any other methods of valuation than the analytic method."
321. Bordiga, O. Trattato di stime rurali. 3d ed. Portici, E. Della Torre, 1923. 2v.
Not seen.
A review of this work in the International Review of the Science and Practice of Agriculture (new series v.3, no.3, July-Sept. 1925, p.864) states that Vol. II treats of "Methods of making valuations, valuation of land with a view chiefly to purchase and sale; methods of valuing landed estate; valuations in various public and private interests; valuations of land under permanent cultivation; forest valuation; estimations regarding water, improvement of land, damage caused by hail, fire, industrial contaminations, etc."

322. Chierici, Remo. A critical study of the methods of valuation. (In International Review of the Science and Practice of Agriculture, v.7, no.2, Feb. 1916, p.282-283) 241 In82.

Abstract from Annali della Società degli Ingegneri e degli Architetti Italiani, Year 30, part 16, 17, 20, 21, 23, Aug.-Dec., 1915, p.302-304, 305-310, 329-334, 342-345, 361-362

"In his article, the writer has undertaken to show the necessity of giving to the analytic method the first place among the schemes of valuation, as being the one which, especially during periods of disturbance in the land market, is capable of rendering signal service. After having pointed out the deficiencies of Aereboe's empirico-statistical method from the theoretical stand-point, the writer examines the practical application of this system in Italy" and concludes that "the empirico-statistical method of valuation is quite impracticable in Italy."

323. Einaudi, Luigi. La terra e l'imposta. (In Annali di economia Università Bocconi, v.1, no.1, Nov.1924, p.37-215) 280.8 An7

There is a 12-page, typewritten review of this article in English in the Library of the U. S. Bureau of Agricultural Economics.

In discussing land taxation from the historical point of view, the author describes the universal census of the Duchy of Milan of 1718, which has been the basis for all later taxation of land in Italy. That census mapped all property and evaluated it upon its productive capacity. Two fundamental ideas of Italian taxation having their origin in the Milanese census are: (1) Taxable property is the gross product of the soil minus total expenses, and (2) The value of the property shall be considered by local standards so that the product due to extraordinary skill shall not be taxed. The theoretical problem is discussed in two chapters, as follows: (1) Analysis of the revenue derived from land, and (2) The choice of the object for taxation. An analysis of the tax on agrarian returns is made, explaining the equation given for calculating taxable revenue. The difference between the method of ascertaining taxable property by declarations and by cadaster is discussed and the merits of the cadaster system are explained.

324. Lumia, Corrado. Estimo rurale ad uso dei proprietari dei beni rustici degl' ingegneri civili e dei periti agrimensori. 3. ed. Catania, F. Battiato, 1917. 626p. 282 L97

"Pubblicazioni consultate": p.[617]

The author discusses various aspects of land valuation in Italy.

325. Serpieri, Arrigo. The method of valuation of real estate. (In International Review of the Science and Practice of Agriculture, v.8, no.1, Jan. 1917, p.139-147) 241 In82

Abstract from Annali del R. Istituto Superiore Forestale Nazionale, Florence, v.1, 1916, p.83-131.

"The valuation of an economic property means the determin-

ation of the amount of money that can be considered as equivalent to the property. This value not only can, but must vary according to the aim of the valuation...The various criteria chosen according to the aim of the valuation may lead to estimation either on the basis of the buying or selling price; the market price; the cost price; or on the basis of the capitalization of the revenues." These are discussed.

Part II of this article, which relates to the application of the method to agricultural and forest valuations, is reviewed in the International Review of the Science and Practice of Agriculture, v.8, no.12, Dec.1917, p.1276-1277.

JAPAN

326. Japan. Laws, statutes, etc. The revised tax laws of Japan. Tr. by Umeo Mogami. Tokyo, Japan, The Meiji-Do [1910]. 112p.

The law pertaining to the re-assessment of dwelling land. [1911] - p.85-90.

Dwelling land includes rural and urban dwelling land. The re-assessed value of dwelling land is fixed at ten times the amount of the rental value fixed by the present law. When, however, ten times the amount of the rental value exceeds, in the case of urban dwelling land, eighteen times the market value of land, and, in the case of rural dwelling land, seven times the amount of 20% of the market value of similar land, the value of land is fixed, in the former case, at eighteen times the market value, and in the latter case, at seven times the amount of 20% of the market value. When the total amount of the value of land, re-assessed according to the foregoing clauses, exceeds the total amount of the land tax, at the existing rate, divided by $2\frac{1}{2}/100$, the amount of the current land tax, divided by $2\frac{1}{2}/100$, is fixed as the total amount of the re-assessed value of land, and the price of land is fixed per lot in proportion to the price of land re-assessed according to the provisions of the preceding clause. The rental value is the income of the lessor derived from land when he rents to others, he, himself being responsible for taxes, repairs and the maintenance of the land. The rental value of dwelling land is decided by the government in accordance with the finding of a valuation investigation committee. Rules are given for the appointment and imposition of such committees. Supplementary regulations are given for the valuation of land on which has been granted a remission of taxes or a reduction of the land value for a fixed term.

NEW ZEALAND

327. New Zealand. Census and statistics office. The New Zealand official year-book, 1927. Wellington, N.Z., W.A.G.Skinner, Government printer, 1926. 1056p. 271.2 R26N

Section XXVI. - Valuation of land, pp.696-704. The system and procedure under the Valuation of Land Act, 1925, and its amend-

ment of 1926, are described, together with an historical account of the valuation of land in New Zealand. Tables give capital and unimproved values of land in New Zealand, 1878-1925, and gross capital and unimproved values of each county, borough and town district

RUSSIA

328. General outline of the new Russian land reforms. (In International institute of agriculture, Rome. Monthly Bul. of Economic and Social Intelligence, v.5, no.1, Jan.1914, p.132-160) 280.29 In83
"The valuation of the land in Russia is habitually made by a deputation of peasants from the commune concerned, under the supervision of a surveyor. The value of the soil is not generally established in money; the land is simply subdivided into various classes and the calculation is made on the principle that a definite area of such or such a class is equivalent to a definite area of another class." p.139.

SPAIN

329. Salazar Mouliáa, Zacariás. Valoración agrícola y catastro. [Madrid] Calpe, [1922] 212p. 281 Sa3

SWITZERLAND

330. Laur, Ernst F. Grundlagen und methoden der bewertung, buchhaltung und kalkulation in der landwirtschaft. 2. ed. Berlin, Paul Parey, 1922, 600p. 30.6 L37
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